THE EFFECT OF PRODUCT QUALITY, BRAND IMAGE, AND SWITCHING BEHAVIOR TOWARDS CONSUMER PURCHASE DECISION IN BUYING PESTICIDE PRODUCTS

A Study on PT. Petrokimia Kayaku Gresik - Indonesia

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Abstract

This research aims to examine the influence of product quality, brand image, and switching behavior towards consumer purchase decision in buying pesticide products on PT. Petrokimia Kayaku Gresik. This type of research is Explanatory Research. This research conducted at East Java concentrated in Gresik. This questionnaire has been distributed as much as 100 randomly distributed to every consumer who has bought Petrokimia's pesticide product. The sampling technique used purposive sampling and the research instruments were tested using the Validity Test, Reliability Test, and Classical Assumption Test. The hypothesis used Partial (T-Test). Results of the data analysis from multiple regression showed that product quality, brand image, and switching behavior of the company have a significant effect partially to consumer purchase decision. From the test results, the dominant test show that variables product quality has a dominant to influence on consumer purchase decision. The results from this study can be applied to marketing strategy for companies and interested parties for retaining and maximizing product quality, brand image, and switching behavior to get a positive effect in the eyes of consumers and potential consumers that can lead to customer purchase decision.

Keywords: product quality, brand image, and switching behavior

PENGARUH KUALITAS PRODUK, CITRA MEREK, DAN PERUBAHAN PERILAKU TERHADAP KEPUTUSAN PEMBELIAN KONSUMEN DALAM MEMBELI PRODUK PESTISIDA

Studi pada PT. Petrokimia Kayaku Gresik - Indonesia

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Abstrak

Penelitian ini bertujuan untuk menguji pengaruh kualitas produk, citra merek, dan perubahan perilaku terhadap keputusan pembelian konsumen dalam membeli produk pestisida pada PT. Petrokimia Kayaku Gresik. Jenis penelitian ini adalah Explanatory Research. Penelitian ini dilakukan di Jawa Timur memfokuskan di Gresik. Kuesioner ini telah didistribusikan sebanyak 100 secara acak kepada setiap konsumen yang telah membeli produk pestisida Petrokimia. Teknik pengambilan sampel menggunakan purposive sampling dan instrumen penelitian diuji menggunakan Uji Validitas, Uji Realibilitas, dan Uji Asumsi Klasik. Hipotesis yang digunakan Partial (T-Test). Hasil analisis data dari regresi berganda menunjukkan bahwa kualitas produk, citra merek, dan perubaha perilaku perusahaan memiliki pengaruh yang signifikan secara parsial terhadap keputusan pembelian konsumen. Dari hasil pengujian, uji dominan menunjukkan bahwa variabel kualitas produk memiliki pengaruh dominan terhadap keputusan pembelian konsumen. Hasil dari penelitian ini dapat diterapkan untuk strategi pemasaran bagi perusahaan dan pihak yang berkepentingan untuk mempertahankan dan memaksimalkan kualitas produk, citra merek, dan perubahan perilaku untuk mendapatkan efek positif di mata konsumen dan konsumen potensial yang dapat menyebabkan keputusan pembelian pelanggan.

Kata kunci: kualitas produk, citra merek, dan perubahan perilaku switching

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CHAPTER I

INTRODUCTION

1.1 Background

Indonesia is one of countries in the world whose majority of the population has a livelihood as a farmer. Commodities such as palm oil, rubber, cocoa, coffee, tea, cassava, rice and tropical spices are some of the many products that Indonesia exports. Gifted with a good climate suitable for agriculture, Indonesia has become the destination for planting crops and horticultures (FAO, 2014). Based on this, it is clear how impactful agriculture is in Indonesia, and how the country aims to focus on this sector. In 2013, Indonesia devised its first long-term agricultural development plan, called the Grand Strategy of Agriculture Development 2013-2045. Its main objective is to promote sustainable agroindustry. The government's 2015-2019 National Medium-Term Development Plan (RPJMN) highlights two specific goals related to agriculture: increase rice production for food security and to develop higher-value cropping to improve rural livelihoods. In line with this, the Strategic Plan of the Ministry of Agriculture 2015-2019 has an overall objective of food sovereignty and enhancing the welfare of farmers.

Sometimes, Indonesia eexperiences hard time due to the global warming and this makes the weather unpredictable. Consequently, farmers are confused in deciding which plant should be planted. This also makes farmer's crop results go down. Another factor that decreases the farmer's production is the pesticide. Pest in the farmer's field like insects and mice become farmer's tough enemies that need to be destroyed for saving the crops, and horticultures. Farmers need a quick

and effective solution to make sure that the crops and horticultures are safe. Farmers also need good price of the pesticide because farmers also need the money to buy fertillizer, and pay the water especially for those plating in the city. All of these is done in order to keep farmer's profit high.

PT. Petrokimia Kayaku Gresik is one of the leading producers of pesticides and biological products for farmers. The company owns a 60% interest in the formulation of pesticides and biological products in Indonesia (Corporate Documentation, 2017). The resulting products are insecticides, herbicides, fungicides, fumigants, rodenticides, molluscicides, attraktan, ZPT, PPC, and biological products. The results of this production make this company as a pesticide company and the most comprehensive biological products in Indonesia in production. In addition, the company also has a commitment that is in line with the wishes of the Ministry of Agriculture because the company helps farmers to become more independent and have good food security with economical prices and quality products.

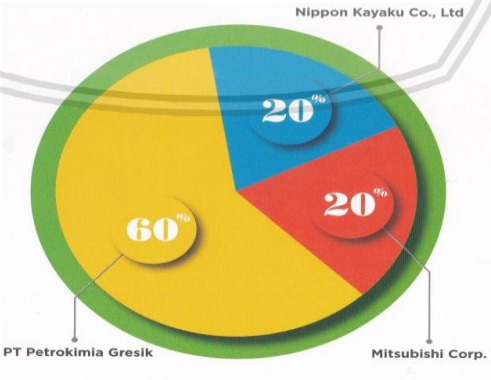


Figure 1.1
Shareholder of PT Petrokimia Kayaku

Source: Document of PT. Petrokomia, 2017

Established on 30th of July, 1977 as a joint venture company, whose shares owned by:

1. PT Petrokimia Gresik 60%
2. Mitsubishi Co. 20%
3. Nippon Kayaku 20%

A long with completeness of production facilities and a developed strong marketing network. As well as reliable human resource, the company has made a big progress in pesticide in the company's sustainability, PT. Petrokimia Kayaku put forward products with high competitiveness and the most in demand by consumers. To support the realization, the company pays attention to product quality. Kotler (2007) defined product quality as a customer perception of a marketed product, the suitability of the product being manufactured and expected by the customer. In marketing, the product is a key element in presenting value to customers. The quality of the product is related to customer satisfaction over the consumed product (Kotler and Armstrong, 2010). Customers who feel fulfilled are needed and desired from a product will tend to make a purchase. Thus, PT. Petrokimia aims to provide quality products to attract consumers.

In addition, the image built by the product also makes customer consideration in deciding to make a purchase. Brand image is a customer perception of the brand of a product Goddess (2009). In general, customers will look for a product with a brand famous or famous than the product of a new brand (Roslina, 2010). Before making a purchase, customers generally search for information and references from a number of trusted parties related to a brand. Perceptions from previous users may affect subsequent customers to use products with the same

brand. Not only that, the sustainability of the company makes the attention of other consumers. A long-standing brand means the product is reliable because it can compete and survive with its development. This condition is an advantage of PT. Petrokimia Kayaku Gresik has achieved a number of achievements, one of which is known as 4 major national companies with more than 100 brands, and has been established since 1977.

Switching behavior also becomes the discussion in this research. Switching behavior is basically a shifting or moving customer behavior (Zikiene and Bakanauskus (2006) in Ahmed (2015)). Moving behavior is applied to brands and products. The displacement is examined is the switching of the products. The company dominates the marketing of pesticide providers to farmers. Based on the company's documentation (2017), the product marketing network is large, at least 150 distributors and 5000 retail outlets. The existence of the company is indicated by the type and number of products produced. The tabulation of the product is as follows:

Table 1.1

PT Petrokimia Kayaku's Production

Types of products	Total Production
Insecticides	34
Herbisides	26
Fungicides	12
Fumigan	1
Rodenticides	3
Moluskicide	1
Attraktan	1
ZPT	2
PPC	2
Biological Products	10

Source: Document of PT. Petrokomia, 2017

Based on the table, the type of product produced by PT. Petrokimia Kayaku reach 10 types. These results indicate that there is a possibility of customers to switch products from the same brand. The move made is related to customer loyalty. So, this research is used to know how big the possibility of product movement happened among customer and describe customer loyalty to PT. Petrokimia Kayaku.

When we talking about product, one of the most important aspect that comes to mind is a the quality. Product quality is the ability of a product to meet what customer needs. In order to make the best out of Petrokimia's pesticide, product quality is the first variable that needs to be in line.

Besides quality, brand image also play a significant role to impact consumer purchase decision. Brand image is the current view of the customers about a brand. It can be defined as a unique bundle of associations within the minds of target customers. By putting brand image as a variable we could understand the brand in general view.

Switching behavior occurs when consumers understand very well the significant differences between brands that compete in a particular market. Through switching behavior the company could understand what went wrong with their product and even knowing their competitive advantage or strength from the consumer who shift from previous brand to Petrokimia's pesticide product. The correlation between those three variables is one strengthen the other. Product quality can't stand alone to influence consumer purchase decision. We have to understand how good or bad people view the Petrokimia's pesticide product and how Petrokimia's consumer stay or shift to another brand.

Product quality, brand image, and switching behavior, are used to influence purchasing decisions. Tjiptono (2008: 19) argues that consumer purchase decision is the choice of one action of two or more alternative choices." Purchasing decisions is related to consumers decisions to use a particular product to meet their needs and wants. Before deciding to buy a product, customers will consider several things, including the quality of the product. Quality products occupy an important role in triggering the purchase decision treatment. In addition, the image shown also underlies a person in making a purchase. Finally, the sustainability of purchasing behavior is demonstrated through the possibility of moving the product and the reason for doing so, but the product moved is still on the same label shade. Thus, this study was conducted to describe the contribution of product quality, its image, and product movement to the decision of purchasing pesticides from PT. Petrokimia Kayaku Gresik.

Previously, there have been a number of studies evaluating the involvement of the variables discussed in this study. The results showed are as follow. First, it is a research conducted by Shararudin et al (2011) entitled The Relationship between Product Quality and Purchase Intention: The Case of Malaysia's National Motorcycle / Scooter Manufacturer. The results revealed that the level of customer perception has no significant effect on buying decision. Customers tend to pay attention to elements other than the perception of quality and only customers who know what they are really looking for before deciding to buy a product

Second, there is a study conducted by Gordius Ago (2015) entitled" Effect of Product Quality Perception, Trust, and Brand Image on Generic Drug Buying Decision and Customer Satisfaction of Hospital Patients in East Kalimantan. In addition, it is also known that brand image significantly affects purchasing decisions and does not affect customer satisfaction. The latest findings suggest that purchasing decisions have significant and valid impacts on generic drug clients in East Kalimantan hospitals.

Third is the research conducted by Zeeshan Ahmad (2015) entitled Factors Affecting Consumer Switching Behavior: Mobile Phone Market in Manchester - United Kingdom. From these confirmations, it is known that product movement is influenced by demand-based and opportunity-based behavior, technological impact, innovation, demographic change, brand image, perception, behavior, attitude, loyalty, and advertising. Some of these factors have a significant effect in triggering and re-motivating customer

behavior while still using existing products / brands or switching to other products / brands.

Based on these considerations, the researcher is interested to conduct this research. Thus, the title of this research is **"THE EFFECT OF PRODUCT QUALITY, BRAND IMAGE, AND SWITCHING BEHAVIOR TOWARDS CONSUMER PURCHASE DECISION IN BUYING PESTICIDE PRODUCTS"**

1.2 Research Problems

Based on the phenomena described in the background, then the formulation of this research problem are:

1. Does product quality significantly affect customer purchase decision of PT. Petrokimia Kayaku Gresik?
2. Does brand image significantly affect customer purchase decision of PT. Petrokimia Kayaku Gresik?
3. Does switching behavior significantly affect customer purchasing decision of PT. Petrokimia Kayaku Gresik?

1.3 Research Purpose

From the formulation of the problem, Research at PT. Petrokimia Kayaku Gresik branch aims:

1. To analyze the effect of product quality on customer purchase decision of PT. Petrokimia Kayaku Gresik.

2. To analyze the effect of brand image on customer purchase decision of PT. Petrokimia Kayaku Gresik.
3. To analyze the effect of switching behavior on customer purchasing decision of PT. Petrokimia Kayaku Gresik.

1.4 Research Significances

The results of this study are expected to provide many benefits to several parties, which are:

1. **The researcher**: This research can develop the researcher's insight concerning phenomena that occur in the field of marketing. In addition, this study also adds the belief that the theories obtained during the course has an important role in its implementation in the real world.
2. **For company**: The research result serves as a material in decision making and as an illustration for the company to provide consideration and input on the marketing concept, especially on product quality and brand image in maintaining its customers.
3. **For Economics and Business Faculty of Brawijaya University:** The results are expected to be used as reference material to improve insight and information for the next reader and researcher.

CHAPTER II

LITERATURE REVIEW

2.1 Previous Research

There are some previous researches which are used as references to explain the current research. They are described as follows:

1. Wayan Adi Wayan (2013) conducted a study entitled "The Influence of Price, Product Quality and Brand Image on Purchasing of INK Helmets". Essay. Faculty of Economics. Yogyakarta State University. Technique used multiple descriptive and linear analysis with sample of 100 respondents. The results show that price, product quality and brand image have a positive effect on purchasing decisions both simultaneously and partially.
2. Hesti Ratnaningrum's study (2016) entitled "the Influence of Promotion, Price and Product Quality to Consumer Purchase Decision in Purchase of Petroleum Type Petroleum in Yogyakarta. The technique used is multiple linear while the population is not mentioned because it used accidental sampling technique. The results prove that there is a positive effect of promotion and price on the purchase decision of the product of pertalite and there is no influence of product quality to the decision of purchasing the product of pertalite.
3. Suzy Widyasari (2008). Brand Behavior Analysis of Consumer Switching in Purchasing of Motorcycle Products (A Study of Consumer of Motor Cycle in Kota Salatiga).

4. Diana Vita Lestari (2011). Analysis Effect of Consumer Dissatisfaction, Need for Finding Variation, Consumer Engagement, Price and Competitor's Fascination against Brang Switching Behavior. Essay. Faculty of Economics. Diponegoro University. This study attempts to test the model of brand switching behavior on mobile phone products. This model emphasizes the influence of consumer dissatisfaction, the need to seek variations, engagement, price, and the attractiveness of competitors to brand switching. There are five hypotheses tested in this study, two of which are accepted while the other three are rejected. This condition indicates that there are two variables that have a positive effect on the behavior of brand movement in buying cellular phone product in Semarang, that is: the need to find variation and competitor's appeal. The results show that the research model is acceptable.

2.2 Product Quality

Quality can be said as the overall characteristics and properties of a product or service that affects its ability to satisfy the stated or implied needs (Kotler, 2007). Quality is a dynamic condition associated with products, services, people, processes, and environments that meet or exceed expectations. According to Kotler and Armstrong (2009) product quality is the ability of a product in demonstrating its function. It includes overall durability, reliability, determination, ease of operation and product reparation as well as other product attributes.

Consumer perceptions of product quality, can be influenced by product prices, consumers have a perception, so the higher the price of a product, the

higher the quality of the product. Consumers can have such perceptions when they have no clue or other reference to the quality of the product, other than the price of the product. But in fact, the perception of the quality of a product can be influenced also by the reputation of stores, advertisements, and other variables.

Referring to previous research conducted by ArioAdiarto on Levi's Product Quality Relation to Customer Loyalty, there are 8 quality dimensions used in the research. The 8 dimensions used are the theories released by Garvin, cited by Tjiptono (2011). The dimensions are:

1) Performance, related to the basic operating characteristics of a product
2) Durability, which means how long or the age of the relevant product lasts before the product must be replaced. The greater the frequency of consumer use of the product, the greater the durability of the product.
3) Conformance to specifications ie the extent to which the basic operating characteristics of a product meet certain specifications of the consumer or the absence of defects in the product.
4) Features, are product characteristics designed to improve product functionality or increase consumer interest in the product.
5) Reliability, is the probability that the product will work satisfactorily or not within a certain period of time. The less likely the occurrence of damage then the product is reliable.
6) Aesthetics, is related to the appearance of the product which can be seen from the looks, taste, smell, and shape of the product.

7) Perceived quality, is often the result of the use of indirect measurements because there is a possibility that consumers do not understand or lack information on the product concerned. Thus, consumer perceptions of the product are obtained from price, brand, advertising, reputation, and country of origin.
8) Serviceability, including speed, competence, comfort, and complaint handling. The services provided are not limited only prior to sales but also during the sales process to after sales.

Product quality is the ability of a product in carrying out its function. Product quality has a very close relationship with customer satisfaction because product quality can be judged from the ability of the product to create customer satisfaction. The relationship of product quality to customer satisfaction is determined by the customer through the existing characteristics of a product and service, where satisfaction and whether the customer is influenced by the value obtained by consuming a product. The higher level of product quality in satisfying the customer, will cause high customer satisfaction also (Kotler and Armstrong 2009).

2.3 Definitions Brand Image

a. Brand

Brand is the name, term, sign, symbol, design or combination of some of these elements, intended to identify goods and services from one or a group of sellers and to differentiate them from their competitors (Kotler, 2012). While the brand image according to Keller (2008) is the consumer perception of a

brand as a reflection of the existing brand associations on the minds of consumers. According Rangkuti (2008) defines "brand image as a collection of brand associations formed in the minds of consumers". The brand association itself is all about memory of a brand. This association is an existing attribute within the brand. Various associations that consumers remember can be strung together to form an impression of the brand

According to Roslina (2010), Brand image is a guide that will be used by consumers to evaluate the product when the consumer does not have sufficient knowledge about a product". There is a tendency that consumers will choose well-known products through experience using products or based on information obtained through various sources. Kotler in Tjiptono (2008) compiled the notion that there are six meanings that can be conveyed through a brand, namely:

1) Means of identification to facilitate the process of handling or tracking products for the company.
2) Forms of legal protection against unique features or product aspects.
3) Signal level of quality for satisfied customers, so they can easily select and buy it again at a later time.
4) Means of creating unique associations and meanings that differentiate products from competitors.
5) The source of competitive advantage, especially through legal protection, customer loyalty, and unique image shaped in the minds of consumers.
6) The source of financial returns mainly concerns future income.

From the definition by the experts above, it can be concluded that the brand is a sign in the form of pictures, names, words, letters, numbers, arrangement of colors or a combination of these elements or symbols that have distinguishing power and used in the activity trade in goods and services.

b. Brand Image

Brand image is a series of associations (perceptions) that exist in the minds of consumers of a brand, usually organized into a meaning. The relationship to a brand will be stronger if it is based on experience and gets a lot of information. An image or association represents a perception that can reflect an objective reality or not. The image formed from the association (perception) is what underlies the decision to buy even brand loyalty from consumers. Brand image includes knowledge and belief in brand attributes (cognitive aspects), consequences of use of the mark and appropriate use situations, as well as evaluations, feelings and emotions that are perceived with the brand (Affective aspect).

Although brand associations can occur in a variety of forms but can be differentiated into performance associations and imagery associations related to brand attributes and advantages. The brand image is a representation of the overall perception of the brand and is shaped from the past information and experience of the brand. The image of the brand relates to an attitude of belief and preference for a brand. Consumers who have a positive image of a brand will be more likely to make a purchase (Setiadi, 2007)

Keller (2010) states that the brand image is a perception of the brand depicted by the brand association that is in the consumer's memory. Dewi

(2009) argues that brand image is a concept created by consumers for reasons of subjective and personal emotions.

From some opinions of experts above, it can be concluded that the brand image is the consumer perception and preference to the brand, as reflected by various brands (perceptions) brand that exist in the memory of consumers.

c. Brand Image Indicators

According to Ali (2011) cited by Apriyani (2014), there are 3 indicators of brand image as follow:

1. Corporate Image (image maker), which is a set of associations perceived consumers against companies that make a good or service. The creator's image includes: popularity, credibility, corporate network, and the user itself / users.
2. User Image, which is a set of associations perceived by consumers to users who use a good or service. It includes: the user itself, as well as its social status.
3. Product Image (product image), which is a set of associations perceived consumer of a good or service. Includes: attributes of products, benefits to consumers, as well as guarantees.

Keller (in Alvian, 2012) suggests the factors of the formation of a brand image. They are:

1. Product excellence is one of the factors forming the Brand Image, where the product is superior in competition. Because of the superiority of quality (model and comfort) and characteristic that causes a product has its own charm for consumers. Favorability of

brand association is a brand association in which consumers believe that the attributes and benefits provided by the brand will be able to meet or satisfy their needs and desires so that they form a positive attitude toward the brand.

2. The power of a brand is a brand association depends on how information enters the consumer's memory and how the process endures as part of the brand image. The strength of this brand association is a function of the amount of information processing received in the eroding process. When a consumer actively describes the meaning of information of a product or service it will create an increasingly strong association in consumer memory. The importance of brand associations in consumer memory depends on how a brand is considered.
3. The uniqueness of the brand is the association of a brand inevitably which must be divided with other brands. Therefore, it must be created a competitive advantage that can be used as a reason for consumers to choose a particular brand. By positioning the brand, it leads more to experience or benefit themselves from the image of the product. From the existing differences, both of products, services, personnel, and channels are expected to make a difference from competitors, which can provide benefits for producers and consumers.

Based on the results of previous research, the researcher measures the brand image research that refers to Kotler (2009) cited by Isyanto (2012) with

indicator attributes namely benefits, values, culture, personality, and users. These powerful indicators can be used as a basis for growth and brand extension to other products and create strong competitiveness between companies.

2.4 Switching Behavior

Brand switching by consumers occurs when consumers understand very well the significant differences between brands that compete in a particular market. Consumers in this case know a lot about the existing product categories. Marketers thus need to differentiate their brand features to explain the brand.

Petter and Olson (2014) reveale that "Brand switching is purchasing patterns characterized by a change or shift from one brand to another brand". Meanwhile, according to Hawkins and Mothersbaugh (2014), brand switching is "Results of consumer dissatisfaction will result in a product that consumers make purchases cessation product to a brand and replace it with other brands."

According Lestari (2011), things that become the basis of consideration in the occurrence of brand switching are as follow:

1. Perceived quality

   In creating a product with a certain brand, marketers are required to show the quality of the brand. The quality of the brand in question here is not limited to packing or low level of product defects, but competitive prices and services provided to the standard that the brand is qualified. If what

happens is the opposite, then consumers will look for other brands that are more qualified.

2. Attractiveness of the product

Each product has its own appeal in which the trademarks of brand differentiation are the most favored in increasing attractiveness.

3. Variety of features

Is a variety of elements - elements offered by a product. The more attractive the features of competing products are, the more likely consumers will switch to competing brands.

4. Commitment

Is the level of consumer loyalty among various kinds of stimulus from the competitors before making the move. The lower the level of commitment or customer loyalty, the greater the occurrence of brand switching

There are three types of brand switching (According to Schiffman and Kanuk (2007), namely:

1. *Explatory Purchase Behavior*

In this type, there are two reasons consumers in the brand move, which is to gain new experience and the possibility of a good alternative.

2. *Vicarious Exploration*

Based on this type of consumers make a brand shift because it gets secure information about something new, different alternatives when thinking or remembering an option.

3. *Use Innovation*

According to this type of consumers make a brand move because they want to use more products that experience renewal. This type is suitable for products that use technology, where some models offer an advantage of privileges and functions where other products contain only a few key features or functions Consumers with variation-seeking properties will prefer or be interested in the brands who are constantly experiencing renewal or change.

According to Bayu (2015), brand switching contains some brand movement or consumer behavior as follows:

1. Dissatisfaction after using the brand
2. The desire to move the brand
3. Brand dismissal
4. Have a dream of another brand

2.5 Purchase Decision

According to Kotler (2009), consumer purchasing decision is "Individual end-consumer purchasing decisions and households purchasing goods and services for personal consumption." Meanwhile, according to Tjiptono (2008), consumer purchase decision is the selection of one action of two or more alternative choice. "

Consumers buy, postpone or cancel a purchase decision are severely affected by perceived risk. The amount of risk that will be perceived by consumers vary depending on the amount of uncertainty attribute, and the amount of consumer confidence.

Consumers develop routines primarily to reduce risks, such as decision avoidance, information gathering from friends, and preference for domestic brands and warranties. Marketers must understand the factors that give rise to perceived risk in the consumer and provide information and support to reduce perceived risk.

According to Kotler (2007), purchasing decisions are a stage in the buyer decision-making process where the consumer will actually buy. The process is a settlement of a price problem consisting of five stages.

Five stages of the buying decision process are: (1) problem identification, (2) information search, (3) alternative assessment, (4) purchasing decision, (5) buying behavior. Phase of Purchase Decision Process are:

1. Problem Introduction

   It is the first stage in the purchasing decision process in which the consumer recognizes the problem or needs

2. Information Search

   At this stage consumers are moved to search for more information. The consumer can more easily do the search for active information, when more information is obtained then the awareness and knowledge of consumers about goods or services will increase.

3. An alternative assessment

   Consumers use information to evaluate alternative brands in the mind set.

4. Purchase decision

   A consumer's decision to change, suspend, or cancel a buying decision, is heavily influenced by one's risk view. The magnitude of the risk a person responds to is different according to the amount of money spent, the number of uncertain traits, and the level of consumer confidence. A consumer develops certain habits to reduce risk, such as canceling decisions, gathering information from friends and choose a national brand and have a guarantee.

5. Behavior after purchase

   After purchasing the product, the consumer will experience a certain degree of satisfaction or dissatisfaction. If the product matches expectations then the consumer will be satisfied. If it exceeds expectations, then the consumer is not satisfied. Consumer satisfaction or dissatisfaction with a product will affect the next behavior. When a customer is satisfied, he will show a higher probability to buy the product again. (Kotler, 2009).

Consumers often skip or reverse some of these stages. One's decisions may be categorized into two categories, subjective decisions and objective decisions. Subjective personal decisions are a decision based on feeling or feeling. It may be that in subjective decisions one can also consider aspects of strengths, weaknesses, opportunities and threats (SWOT). While an objective decision is a pure, emotionless decision, which requires responsibility, rationality and accountability.

Thus, in the first category decisions are personal by involving emotions, and the second category is almost entirely based on the rational aspect of a decision-making. However, a really complicated decision often involves a combination of the two. The difficulty that often arises is the fact that emotions and strategic rational thinking are on two sides to the same human brain, where a complicated decision must be made using both sides of the brain simultaneously. A decision maker first needs to establish the values and goals to ensure a decision-making process.

Before taking action, one needs to create a series of alternative action programs and simultaneously collect information related to their respective action alternatives. Once the information is gathered one can make predictions for every possible alternative and make a decision plan as well as its implementation. From any good decision, it will in turn invite new problems that will require another effort. Thus, every success in decision-making is just the purchase of tickets to get into more difficult decision issues.

2.6 The Relationships between Product Quality and Purchase Decisions

Companies are required to provide quality products with good consumers will be able to buy it in accordance with the wishes or needs. Decision consumers in buying a desired product or service can also affect the company either engaged in services or products so that the company is always required to improve the quality, creative and dynamic so it can affect consumer purchasing decisions. This is also supported by the research of Putra et al (2017) which shows that the quality of the product which is done with good

quality, accompanied by interested design or form will provide benefits so customers can make a consideration in making a purchase.

Furthermore, a research by Nurdiansyah (2017shows that product quality influence to purchase decision. Hariandy research (2014) shows that product quality also affects consumer purchasing decisions.

2.7 The Relationships between Brand Image and Purchase Decisions

The purchase decision, is at the evaluation stage, the consumer composes the brands in the set of choices and forms the purchase value. Usually consumers will choose the preferred brand but there are also factors that influence such as the attitude of others and the factors of unforeseen circumstances. consumer purchasing decisions are often more than two parties from the exchange or purchase process, people who have a good perception of an item will also have an influence on purchasing decisions against the goods.

According to Romadhoni (2015), it is argued that the brand image is a concept created by consumers for reasons of subjective and personal emotions. Added brand image is the perception of the brand depicted by the brand association that is in the consumer's memory. A good brand image of a good will increase a good perception of a person. Thus, a good brand image of a nike brand's shoes will influence one's native's shoe decisions.

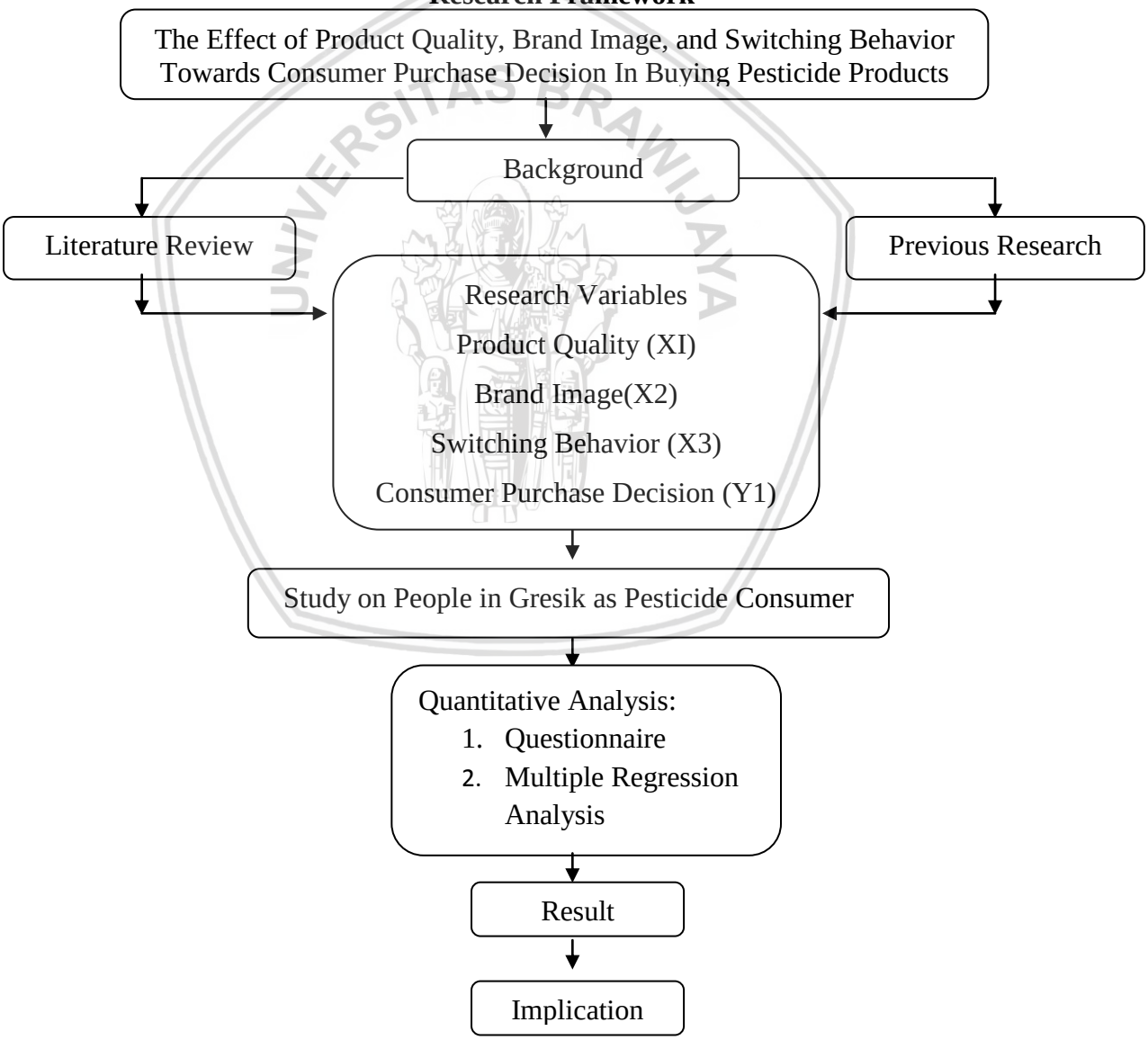
Further research by Nurhayati (2017) shows that the peacock image affect consumer purchasing decisions. Research by Virawan (2013) shows that brand image affects purchase decisions

2.8 Research Framework

This research study is identifying the effect of Product Quality, Brand Image, and Switching Behavior toward Consumer Purchase Decision in Buying Pesticide Product. The researchers distributed the questionnaires to the the people in East Java to represent as a sample of the population. The research framework concept will be explained below:

Figure 2.1

Research Framework

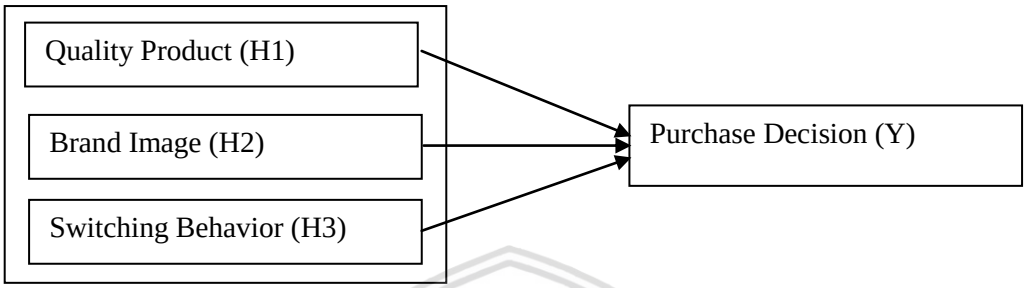


Source: Primary Data Processed 2018

2.9 Research Hypothesis

Figure 2.2

Hypothesis Model



Based on the above description, it can be formulated hypothesis as follows:

H1: Product Quality has sinigicant influence on purchasing decisions.

H2: Brand image has sinigicant influence on purchasing decisions.

H3: Brand Switching has sinigicant influence on purchasing decisions.

CHAPTER III

RESEARCH METHOD

3.1 Type of Research

This research is descriptive quantitative, which explains the relationship between variables by analyzing numerical data (numbers) using statistical methods through hypothesis testing. This type of research is a survey as the researcher do observations in collecting data. The researcher only records the data as it is and analyzes it.

3.2 Population and Sampling

The population is a composite of all the elements in the form of events, things or people who have similar characteristics that are at the center of a researcher's attention. Therefore, it is viewed as a universe of research (Augusty, 2006). In this study, population is all the people who have bought PT Petrokimia Gresik Kayaku which is located in Gresik, east java, Indonesia.

The sample is a subset of the population, composed of several members of the population. This subset is taken because in many cases it is impossible to examine all members of the population. Therefore, there must be a form of representative population called sample (August, 2006). There are two types of sampling techniques which are probability and nonprobability sampling. This study used purposive sampling which is included into non-probability sampling. In purposive sampling, the researcher specifies the sample of the population characteristic and locates the respondent into those characteristics. This study uses specific type of people to be the respondent because they are

who can deliver accurate information that researcher is looking for. The considerations of some criteria are as follow:

1. Respondent who lives in Gresik, East Java
2. Respondent who used Petrokimia's pesticide product at least once
3. Respondent who is in the age around 20 – 58 years old

3.3 Type of data

Based on the source, the data in this study can be divided into two types, namely:

1. Primary Data

   According to Sekaran and Bougie (2010), primary datais the first hand information obtained by the researcher on the variables of interest for specific purpose of the study.

2. Secondary Data

   Secondary data is usually collected from other resource such as book, government website, or data that has been collected from other researcher. This research uses secondary data from government website, books, journals, and previous research to help this study focus on its purpose and easier in gaining the answer of the hypothesis. The advantage of using this type of data in this research are the researcher can compare data between present and past. Secondary data is also cheaper and easier to get, and also it has a lot of author to help the researcher of this study learn and understand more about the research topic.

3.4 Data Collection Method

Techniques of collecting data to obtain relevant data is to spread the questionnaires and interviews. Questionnaire is a data collection technique that is done by giving a set of questions or written statement to the respondent to be answered (Sugiyono, 2007)

3.5 Operational Definition and Variable Measurement

According to Nazir (2003) the definition "Operational definition is a definition given to a variable or a constraint by giving meaning or specify activities or provide an operational necessary to measure the constants or variables. The operational definition of research variables are as follows:

1. Independent Variable (X)

a. Quality Product (X1)

Is an advantage possessed by the quality produced by PT PetrokimiaGresik. Product quality is as follows:

1) Performance, namely the ability of pesticides to accelerate plant growth and eradicate pests.
2) Durability, ie the ability of the product to remain used in accordance with the expiration limit (2 years after the production period).
3) Compatibility with the specification, namely the suitability of benefits perceived by customers with claims filed by the company.
4) Reliability, namely the ability of products that do not cause side effects that harm the user.

5) The perceived quality, namely the number of permits from the Ministry of Agriculture are included on the product packaging to ensure the impression customers will quality products.
6) Serviceability, a product that is easily accessible to the customer.

b. Brand Image (X2)

Apriyani (2014) Brand perceptions are illustrated by the brand associations that exist in consumer memory. The indicators are as follows:

1) Creator's Image, namely the customer's perception of the product of the company that is able to meet the needs of plants in plants.
2) User image, that is positive perception that is customer to product from company.
3) Product image, that is customer perception which is product of company as first choice in choosing pesticide than others.

c. Switching Product (X3)

Purchase patterns characterized by changes or changes from one product to another. Indicators as follows:

1) Product non-conformity, that is difference of desire from customer with product offered.
2) The desire to move, that is the desire of customers to make variations in using fertilizer.
3) Dismissal, is the customer's desire to no longer use certain products.
4) Having another dream, that is the product with ads and promotions that are more interesting than the products used previously / now.

2. Dependent Variable (Y)

In this study which includes the dependent variable is the purchase decision is an action performed by the consumer to make a purchase. The buying decision indicators are:

a. The introduction of the problem, namely the ability of customers to recognize the need to use fertilizer.
b. Searching information, ie efforts made by customers to obtain knowledge about the appropriate product.
c. Alternative assessment, ie customer evaluation or reconsideration of the information obtained.
d. Purchase decision, namely the decision of the customer in suspending the choice to decide the product to be consumed.
e. Behavior after purchase, the attitude shown as a result of customer satisfaction or dissatisfaction after using the product.

Operational definition of research variables is an explanation of each of the variables used in the research on the indicators formed. Based on the above discussion, clarification of each variable is described in table 3.1 as follows:

Table 3.1

Operational Definition of Variables

Variable	Definitions	Indicator	Scale
Product Quality (X1)	product quality is the ability of a product in demonstrating its function (Kotler and Armstrong, 2009)	-Performance • Healthy Cropd -Durability • Long lasting -Conformance to specification • Benefits according to plant composition -Reliability • No harmful effect of the plant -Perceived quality • Guaranteed from legal packaging -Serviceability • Easy to buy the product	ScaleLikert
Brand Image (X2)	Brand image is the consumer's perception of a brand as a reflection of the existing brand association on the consumer's mind (Keller, 2008)	-Creators image • Become a famous family • Fulfill the needs -User image • Can produce a quality harvest • Suitable with the product -Product image • The product is always remembered • Pesticide become choices	ScaleLikert
Brand Switching (X3)	Brand switching is purchasing patterns characterized by a change or shift from one brand to another brand (PetterdanOlson,2014)	-Product non-conformity • Not conformity expected -The desire to move • Want to try another product -Dismissal • Using another product -Have another dream • More interesting product	ScaleLikert

Table 3.1

(Continued)

Purchase Decision (Y)	purchasing decisions are the stage in the buyer decision-making process whereby consumers will actually buy (Kotler, 2007)	- Identification to the problem • Needs - Problems Introduction • Searching information - Alternative Rating • Evaluate from option - Purchase decision • Decision after review - Post purchase behaviour • Promote to others	ScaleLikert

3.6 Variable Measurement Technique

The data measurement technique in this research use Likert scale. Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2010). The way of measurement is to provide some questions asked in the questionnaire and then respondents are asked to answer questions in the questionnaire to measure the independent and bound variables. Questions are made on a Likert scale with weights 1-5 in Table 3.1 as follows:

Table 3.2

Likert Scale Rating

Scale	Answer choice	note	Score
1	Strongly agree	SS	5
2	Agree	S	4
3	Neutral	N	3
4	Disagree	TS	2
5	Strongly disagree	STS	1

3.7 Research Test Instrument

Data processing is done to test the hypothesis of statistical research with multiple linear regression as a means of testing. According Sugiyono (2014) measuring instrument research in a study referred to as research instruments. The number of research instruments depends on the number of research variables that have been set for research. In this study, the instrument used is a questionnaire. In order to obtain a truly valid result it is necessary to test the instruments used, namely to test the validity and reliability.

3.7.1 Validity Test

Validity test is technique to test questionnaire that the instrument used in research to get the data so the data obtained can be used (valid) or not. There are several types of validity test according to Sekaran and Bougie (2010:158) that is used to test the goodness of measurement, the researcher uses different term to denote them. The researcher analyses the validity of research instrument by entering the items of respondents per each variable to put into calculation of validity analysis program named SPSS 25 for Windows. Testing criteria is done as follows, If the count of r (coefficient) ≥ r table (test 2 sides with sig. 0.05), the instrument items significantly correlated to the questions so the total score (is declared invalid) and the opposite or invalid if the count r < r table.

3.7.2 Realibility Test

According to Ferdinand (2011:263) a scale or measuring instrument data and data produced is considered reliable or credible, when the instrument is consistently produces similar results each time resulting measurement (Ferdinand,

2011: 263). The method used to test the reliability of questionnaires in this research is the formula coefficient of Cronbach Alpha.

a. When the results of the Alpha coefficient> 60% significance level, or 0.6 the questionnaire is reliable.

b. When the results of the coefficient alpha <60% significance level, or 0.6 the questionnaire is not reliable

3.8 Classical Assumption Test

Classical assumptions test is done to determine the condition of the existing data. To determine the proper analysis models, this research. It is to test whether the regression line is obtained by linear and it can be used for forecasting, the three models, which are:

3.8.1 Normality Test

According to Ghozali (2011) normality test purposes is to test whether in regression model the disturbing variable or residual variable has normal distribution. The method used to test the normality is the Kolmogorov-Smirnov test. The significance of the result of the Kolmogorov-Smirnov is >0.05. Having this number means that the data is normally distributed. If it is less than 0.05, the data is not normally distributed. Therefore, it can detect the normality.

Principally, the normality of Data can be seen by looking at the spread of the data (points) on the diagonal axis on the graph or histogram of the residual. Normal and abnormal data can be described as follows:

1. If the data spread around the diagonal line follows the direction of the diagonal line or histogram chart, it shows that the pattern normally distributed, then the model regression meets the assumption of

normality.

2. If the data spread far from the diagonal line and does not follow the direction of the line diagonal or histogram graph, it does not show a pattern of distributed normal, so regression model does not meet the assumptions of normality.

3.8.2 Multicollinearity

Multicollinearity is a test that is often encountered by statistical phenomenon in which two or more independent variables in multiple regression model are highly correlated (Sekaran & Bougie, 2013:319). The common way to identify multicollinearity is by determining the amount of value inflation factor (VIF). The steps to identify multicollinearity assumption are:

- If the VIF value is smaller than 10 (VIF < 10), there is no multicollinarity problem

3.8.3 Heterocesdasticity Test

According to Ghozali (2011) heteroscedasticity test is useful to know whether there was dissimilarity of variance of residuals some observations with other observations in the regression model. To test whether there is a problem heteroscedasticity, it can be done by looking whether there is a certain pattern in the scatterplot graph between SRESID and ZPRED where the Y axis is the residual and the X axis is the X that has been predicted. If there is a specific pattern on a regular basis on the scatterplot graph then there is an indication that there is heteroscedasticity. If there is no clear pattern, so there is no heteroscedasticity.

3.9 Data Analysis Method

3.9.1 Multiple Linear Regression Analysis

Is a test to measure how much influence product quality, brand image and switching behavior of the product on the purchase decision of pesticides in PT. Petrokimia Kayaku is by the formula:

Y= a + $b_1.x_1$+$b_2.x_2$+ E (Sugiyono,2011)

Where:

Y = Purchase decisions

a = constants

b_1.....b_2 = regression coefficient

x_1 = product quality variable

x_2 = variable brand image

x_3 = variable switching product

E = standard error

3.9.2 Determination Coefficient (R2)

Coefficient of determinant (R2) is essential to measure how far the ability of the model is able to explain variations of the dependent variable. The coefficient of determination is between zero and one. Small value of R2 means that the ability of variables independent in explaining the dependent variable is very limited. When the value is near to point >1(one), it means that the independent variables provides almost all the information needed to predict the variation of the dependent variable (Ghozali, 2011).

3.10 Hypothesis Test

3.10.1 T Test

According to Ghozali (2011), t test basically shows how far the influence of the independent variables individually in explaining the dependent variable. T test is used to see the significant effect of the entire independent variable X partial effect on dependent variable Y. The hypothesis is formulated as follows:

- H1 = meaning there is no significant influence of independent variable on the dependent variable.
- H0 = meaning that there is a significant influence of independent variables on the dependent variable

The acceptance or rejection of the hypothesis is based on the following criteria:

1. If the value of the t statistic significance is < 0.05, then H0 is accepted. This means there is a partial significant effect among Product Quality, Brand Image, and Switching Behavior to Purchase Decision.
2. If the value of the t statistic significance is > 0.05 o, then H1 is rejected. This means that there is no partial significant effect among Product Quality, Brand Image, and Switching Behavior to Purchase Decision.

3.11 Test of Dominant Variables

To know the dominant variable influence on purchasing decision, Standarized Coefficient Beta can be used, where the highest Beta indicates the dominant free variable having an effect on the dependent variable. For example: $\beta_1 > \beta_2$, and β_3 then the dominant variable X_1 influences the dependent variable.

CHAPTER IV

RESEARCH RESULT AND DISCUSSION

4.1 The Overview of PT. Petrokimia Kayaku Gresik

PT Petrokimia Kayaku is one of the subsidiaries of PT Petrokimia Gresik engaging in pesticides and biological products leading in Indonesia located in Gresik, East Java. Inaugurated on 30 July 1977 as a company with Foreign Investment status, with joint venture with Mitsubishi Co. and Nippon Kayaku, supported by complete production facilities and extensive network marketing and reliable human resources, the company is able to develop in the pesticide industry, biological products and other agricultural chemicals. The types of products that have been produced are insecticides, fungicides, herbicides, rodenticides, acarisides, molluscicides, fumigants, growth regulators, surfactants, termiticides, etc.

In conducting its business, PT Petrokimia Kayaku is in cooperation with national and international partners with experience is agrochemical field. PT Petrokimia Kayaku gained the trust from leading Agrochemical company in Japan, India, and South Korea in formulating, producing, and marketing their patented agrochemical products. As both the end user and brand advocate, Indonesian farmers got the full support from PT Petrokimia Kayaku. Through the formed socialization system, the company has conducted education activities to the farmers, kiosk, and distributors in the effort to disseminate the knowledge regarding the safe use of agrochemical products as need.

4.2 The Characteristics of Respondents

4.2.1 Age of Respondents

The data showing the characteristic of respondents based on age can be seen in the following table:

Table 4.1

Age of Respondents

Age	Frequency	Percentage
< 26 years	5	5
27 - 34 years	24	24
35 - 42 years	48	48
43 - 50 years	15	15
51 - 58 years	8	8
Total	100	100

Source: Primary Data Processed, 2018

Based on table 4.1 above, it can be seen that respondents aged <26 years old are as many as 5%, followed by those aged 27-34 years old for 24%, aged 35-42 years old for 48%, aged 43-50 years old for 15%, aged 51 - 50 years old for 8%, and finally no one aged> 59 years. It can be concluded that most of the users are well aged and has a lot of experienced using a pesticide product.

4.2.2 Gender of Respondents

The data showing the characteristic of respondents based on gender can be seen in the following table:

Table 4.2

Gender of Respondents

Gender	Frequency	Percentage
Male	57	57
Female	43	43
Total	100	100

Source: Primary Data Processed, 2018

Based on the above table, it can be seen that male respondents count for 57% while women respondents are as many as 43%. Since a pesticide product is a unisex. It can be used by both male and female, based on the data we can see that male is more dominant, with the percentage of 57%.

4.2.3 Education of Respondents

The data showing characteristic of respondents based on education can be seen in the following table:

Table 4.3

Education

Education	Frequency	Percentage
High school	15	15
Diploma	57	57
Bachelor	28	28
Total	100	100

Source: Primary Data Processed, 2018

Based on Figure 4.3 above, it can be seen that the respondents having high school education are as many as 15% followed by those having diploma

education for 57% and those having bachelor degree for 28%. Based on the data above, it can be concluded that using a pesticide product doesn't have to be a high pitch of education. Most of the users are in Diploma with percetage of 57%.

4.2.4 Marital Status of Respondents

The data showing the characteristic of respondents based on Marital Status can be seen in the following table:

Table 4.4

Marital status

Marital Status	Frequency	Percentage
Married	65	65
Single	35	35
Total	100	100

Source: Primary Data Processed, 2018

Based on Table 4.4 above, it can be seen that respondents who have married count for 65% while the rest for 35% is still single. It can be concluded that most the users are already married because the majority of them are in the age of 35-42 years old.

4.3 Variable Values Observed

a. Frequency Distribution of Quality Product Variable (X1)

In the Quality Product variable there are six items of questions given to the respondents to be answered. Respondents' answers can be seen on Table 4.3

Table 4.5

Frequency Distribution of Quality Product Variable (X1)

Item	5		4		3		2		1		Total		Average
	f	%	f	%	f	%	F	%	f	%	Total	%	
X1.1	9	9.00	61	61.00	16	16.00	9	9.00	5	5.00	100	100	3.60
X1.2	14	14.00	47	47.00	33	33.00	6	6.00	0	0.00	100	100	3.69
X1.3	12	12.00	55	55.00	28	28.00	4	4.00	1	1.00	100	100	3.73
X1.4	14	14.00	39	39.00	39	39.00	8	8.00	0	0.00	100	100	3.59
X1.5	15	15.00	42	42.00	41	41.00	2	2.00	0	0.00	100	100	3.70
X1.6	11	11.00	39	39.00	32	32.00	17	17.00	1	1.00	100	100	3.42
													3.62

Source: primary data processed, 2018.

From Table 4.5 above, the mean numbers (scores) 5,4,3,2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Doubtful

2.: Disagree

1: Strongly Disagree

Table 4.3 shows the description of respondents answer concerning Quality Product variable gotten from 100 respondents having the average value of 3.62. The value indicates that the respondent has a high Quality Product.

b. Frequency Distribution of Brand Variable (X2)

In the Brand Image variable there are six items of questions given to the respondent sto be answered. Respondents' answers can be seen on Table 4.6:

Table 4.6

Frequency Distribution of Brand Variable (X2)

Item	5		4		3		2		1		Total		Average
	f	%	f	%	F	%	f	%	f	%	Total	%	
X2.1	14	14.00	56	56.00	25	25.00	5	5.00	0	0.00	100	100	3.79
X2.2	16	16.00	56	56.00	22	22.00	5	5.00	1	1.00	100	100	3.81
X2.3	15	15.00	54	54.00	25	25.00	6	6.00	0	0.00	100	100	3.78
X2.4	16	16.00	54	54.00	24	24.00	6	6.00	0	0.00	100	100	3.80
X2.5	10	10.00	45	45.00	42	42.00	3	3.00	0	0.00	100	100	3.62
X2.6	13	13.00	60	60.00	19	19.00	7	7.00	1	1.00	100	100	3.77
													3.76

Source: primary data processed, 2018.

From Table 4.6 above, the mean numbers (scores) 5,4,3,2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Doubtful

2.: Disagree

1: Strongly Disagree

Table 4.4 shows the description of respondents answer concerning brand variable gotten from 100 respondents having the average value of 3.76. The value indicates that the respondent has a high level of interest.

c. Frequency distribution of Switching Behavior Variable (X3)

In Switching Behavior variables there are four items of questions given to respondents to be answered. Respondents' answers can be seen on Table 4.7:

Table 4.7

Frequency Distribution of Variable Switching Behavior (X3)

Item	5		4		3		2		1		Total		Average
	F	%	f	%	f	%	f	%	f	%	Total	%	
X3.1	13	13.00	50	50.00	30	30.00	6	6.00	1	1.00	100	100	3.68
X3.2	12	12.00	41	41.00	42	42.00	5	5.00	0	0.00	100	100	3.60
X3.3	10	10.00	45	45.00	35	35.00	7	7.00	3	3.00	100	100	3.52
X3.4	4	4.00	47	47.00	34	34.00	15	15.00	0	0.00	100	100	3.40
													3.55

Source: primary data processed, 2018.

From Table 4.7 above, the mean numbers (scores) 5,4,3,2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Doubtful

2.: Disagree

1: Strongly Disagree

Table 4.5 shows the description of respondents answer concerning switching behavior variable gotten from 100 respondents having the average value of 3.55. The value indicates that the respondent has a good opinion.

d. Frequency distribution of Purchase Decision Variable (Y)

In the Purchase Decision variable there are five items of questions given to the respondents to be answered. Respondents' answers can be seen on Table 4.8:

Table 4.8

Frequency Distribution of Purchase Decisionvariable (Y)

Item	5		4		3		2		1		Total		Average
	f	%	f	%	f	%	f	%	f	%	Total	%	
Y1	18	18.00	59	59.00	21	21.00	2	2.00	0	0.00	100	100	3.93
Y2	15	15.00	55	55.00	28	28.00	2	2.00	0	0.00	100	100	3.83
Y3	14	14.00	41	41.00	39	39.00	6	6.00	0	0.00	100	100	3.63
Y4	14	14.00	61	61.00	19	19.00	4	4.00	2	2.00	100	100	3.81
Y5	15	15.00	54	54.00	27	27.00	4	4.00	0	0.00	100	100	3.80
													3.80

Source: primary data processed, 2018.

From Table 4.8 above, the mean numbers (scores) 5,4,3,2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Doubtful

2.: Disagree

1: Strongly Disagree

Table 4.6 shows the description of respondents answer concerning Purchase Decision Product variable gotten from 100 respondents having the average value of 3.80. These values indicate that consumers have a good category in making decisions.

4.4 Test of Research Instruments

The questionnaire in this study was used as an analytical tool. Therefore, in the analysis conducted more on the score of respondents in each observation. While whether or not the response score depends on data collection. Good data collection instruments must meet two important requirements that are valid and reliable.

4.4.1 Validity Test

Testing of validity is needed in a study, especially those using questionnaires in obtaining data. Testing validity is intended to know the validity of understanding the validity of the concept and empirical reality. Validity test is a measure that shows the validity and validity levels of an instrument. An instrument is said to be valid if it is able to measure what it wants to be measured or can reveal data from the variables studied appropriately. The high validity of the instrument indicates the extent to which the data collected does not deviate from the description of the variable in question.

Validity testing can be done by correlating each factor or variable with the total factor or variable by using correlation (r) product moment.

The test criteria for accepting or rejecting the hypothesis of a valid statement or not can be done by:

H0: r = 0, there is no valid data at Error level (α) 5%.

H1: r ≠ 0, there is valid data at Error level (α) 5%.

The null hypothesis (H0) is accepted when r arithmetic <r table, vice versa alternative hypothesis (H1) is accepted when r count> r table.

Validity testing was conducted by SPSS ver program. 20.0 by using product moment correlation resulting value of each item statement with score item of question in whole and for more details information, it is presented on the following table:

Table 4.9

Validity Test Variable

Item	r Test	Sig.	r Table	Information
X1.1	0.656	0.000	0.3	Valid
X1.2	0.771	0.000	0.3	Valid
X1.3	0.590	0.000	0.3	Valid
X1.4	0.757	0.000	0.3	Valid
X1.5	0.836	0.000	0.3	Valid
X1.6	0.706	0.000	0.3	Valid
X2.1	0.925	0.000	0.3	Valid
X2.2	0.865	0.000	0.3	Valid
X2.3	0.922	0.000	0.3	Valid
X2.4	0.922	0.000	0.3	Valid
X2.5	0.591	0.000	0.3	Valid
X2.6	0.631	0.000	0.3	Valid
X3.1	0.809	0.000	0.3	Valid
X3.2	0.646	0.000	0.3	Valid
X3.3	0.760	0.000	0.3	Valid

Table 4.9 (Continued)

X3.4	0.649	0.000	0.3	Valid
Y1	0.720	0.000	0.3	Valid
Y2	0.849	0.000	0.3	Valid
Y3	0.668	0.000	0.3	Valid
Y4	0.624	0.000	0.3	Valid
Y5	0.812	0.000	0.3	Valid

Source: primary data processed, 2018.

From Table 4.9 above can be seen that the value of sig. r question item is smaller than 0.05 ($\alpha = 0.05$) which means that each variable item is valid, so it can be concluded that the items can be used to measure research variables.

4.4.2 Reliability Test

Reliability test shows the level of stability, sharpness and accuracy of a measuring instrument or test used to determine the extent to which the measurement is relatively consistent when re-measured. This test is used to determine the extent to which a person's answers are consistent or stable over time. Reliability testing technique is to use coefficient value of alpha reliability. Criteria of decision-making is if the value of the coefficient of alpha reliability is greater than 0.6 then the variable is reliable.

Table 4.10

Reliability Test Variable

No.	Variable	Reliability Coefficient	Information
1	X1	0.808	Reliable
2	X2	0.895	Reliable
3	X3	0.684	Reliable
4	Y	0.782	Reliable

Source: Primary Data Processed, 2018.

From Table 4.10 it is known that the value of cronbach alpha for all variables is greater than 0.6. From the previously mentioned provisions, all the variables used for research are reliable.

4.5 Classical Assumption Test Result

These classical assumptions should be tested to meet the use of multiple linear regression. After multiple regression calculations are performed through the SPSS for Windows tool, a classical regression assumption test is performed. Test results are presented as follows:

4.5.1 Normality Test Result

The test is performed to determine whether the residual value is normal or not distributed. The test procedure is performed by Kolmogorov-Smirnov test, with the following conditions:

Hypothesis used:

H0: residual spread normally

H1: residual is not normally spread

If the value is sig. (p-value)> then H0 is accepted which means normality is fulfilled. Normality test results can be seen on Table 4.9

Table 4.11

Normality Test Result

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.81621468
Most Extreme Differences	Absolute	.109
	Positive	.109
	Negative	-.086
Kolmogorov-Smirnov Z		1.090
Asymp. Sig. (2-tailed)		.186

a. Test distribution is Normal.

b. Calculated from data.

Source: Primary Data Processed, 2018.

From the calculation results obtained sig value. of 0.186 (can be seen in Table 4.11) or greater than 0.05; then the provision H0 is accepted that the assumption of normality is met.

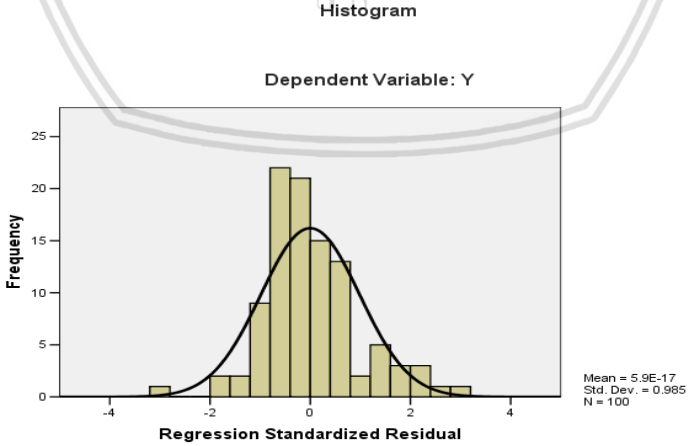


Figure 4.1

Histogram

Based on Histogram Graph test, it is found that Residual frequency collects at the most 0 or the data distribution is in accordance with the normal curve, so it is said that the residual has spread normally.

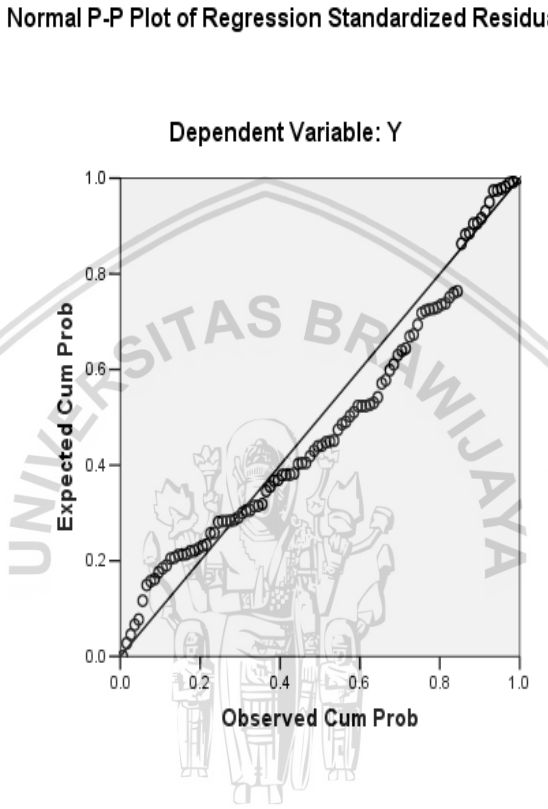


Figure 4.2

P-P Plot

Based on the P-P test the plot was found that the data points had spread following the diagonal line, so it was said that the residual had spread in a normal distribution.

4.5.2 Multicolinearity Test

Multicolinearity test is done to know that there is no relationship that is very strong or no perfect linear relationship or it can be said that between independent variables are not related. The way of testing is to compare the Tolerance values obtained from multiple regression calculations, if the tolerance value <0.1 then the multicollinearity occurs. Multicollinearity test results can be seen on Table 4.11.

Table 4.12

Multicolinierity Result

Variable	**Collinearity**Statistics	
	Tolerance	VIF
X1	0.880	1.136
X2	0.622	1.608
X3	0.656	1.524

Source: Primary Data Processed, 2018

Based on Table 4.12, the following test results from each independent variable:

- Tolerance for Quality Product is 0.880
- Tolerance for Brand Image is 0.622
- Tolerance for Switching Behavior is 0.656

In the test results obtained that the overall tolerance value> 0.1 so it can be concluded that there is no multicolinierity between independent variables.

Multicollinearity test can also be done by comparing the VIF (Variance Inflation Factor) with the number 10. If the value of VIF> 10 then

multicollinearity occurs. The following is test results of each independent variable:

- VIF for Quality Product is 1.136
- VIF for Brand Image is 1.608
- VIF for Switching Behavior is 1.524

From the test results can be concluded that there is no multicolinierity among independent variables. Thus the assumption test of the absence of multicollinearity can be fulfilled.

4.5.3 Heterocedastisity Test

Heterocedastisity test is used to find out whether there is inequality of residual deviation value due to the small value of one of the independent variables or the difference in the value of variety with the increasing value of independent variables. The test procedure is performed by scatter plot test. Testing homogeneity of the remaining variety is based on the hypothesis:

H_0 : homogeneous residual variety

H_1 : the remaining variety is not homogeneous

The result of heteroscedasticity test can be seen in the following Figure 4.3

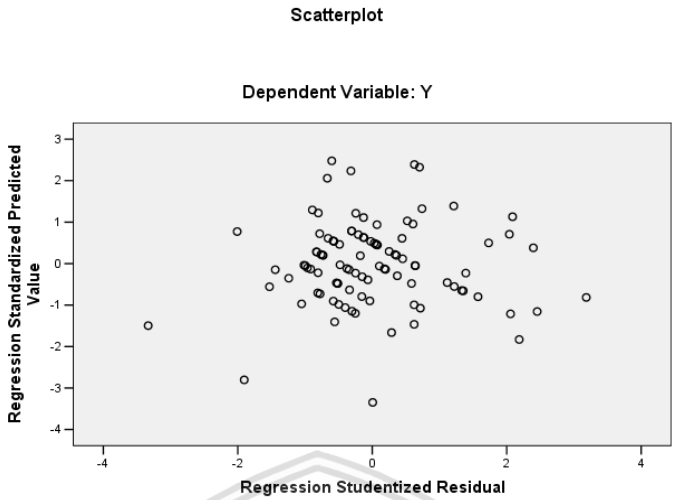


Figure 4.3

Heterocedastisity test

Source: Primary Data Processed, 2018

From the test result, it is found that scatterplot scatter diagram spreads and does not form a certain pattern hence no heterocedastisity, so it can be concluded that the residual have homogeneous variety (constant) or in other words there is no symptoms of heterocedasticity.

With all the classical assumptions of the above regression, it can be said that the multiple linear regression model used in this research is feasible or appropriate. So that it can be taken the interpretation of the results of multiple regression analysis has been done.

4.6 Multiple Linear Regression Analysis

This regression analysis is used to calculate the magnitude of influence between independent variables, namely Quality Product (X_1), Brand Image (X_2), Switching Behavior (X_3) to the dependent variable Purchase Decision (Y).

Table 4.13 : Multiple Regression Analysis Results

Variable	Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Information
Y	(Constant)	2.379		1.589	0.115	
	X1	0.351	0.455	6.351	0.000	Significant
	X2	0.183	0.248	2.905	0.005	Significant
	X3	0.335	0.277	3.338	0.001	Significant
R : 0.752						
R Square : 0.566						
Adjusted R Square : 0.552						
F count : 41.738				F tabel :		2.699
Sig. F : 0.000				t Tabel :		1.985

Source: Primary Data Processed, 2018.

The regression equation obtained based on Table 4.12 is as follows:

$$Y = 2{,}379 + 0{,}351\ X_1 + 0{,}183\ X_2 + 0{,}335\ X_3$$

The above equation can be interpreted as follows:

- a = 2,379, Meaning Purchase Decision is 2,.379 if all of independent variables are constant.
- b1 = 0.351, meaning Purchase Decision will increase by 0.351 units for each additional one unit X1 (Quality Product). So, if Quality Product has 1 unit increase, Purchase Decision will increase by 0,351 unit with assumption that other variable is considered constant.
- b2 = 0.183, meaning that the Purchasing Decision will increase by 0.183 units for each additional one unit of X 2 (Brand Image). So,

if the Brand Image has one unit increase, then the Purchase Decision will increase by 0.183 units with the assumption that the other variables are considered constant.

- b3 = 0.335, meaning Purchase Decision will increase by 0.335 units for each additional one unit of X3 (Switching Behavior). So, if Brand Image has 1 unit increase, Purchase Decision will increase by 0.335 units with assumption that other variable is considered constant.

4.6.1 Coefficient of Determination (R^2)

To know the contribution of independent variable (Quality Product (X_1), Brand Image (X_2), and Switching Behavior (X_3) to the dependent variable (Purchase Decision) the value of adjusted R2 is used while coefficient determination is used to calculate the magnitude of influence or contribution of independent variable dependent variable. From the analysis on Table 4.12, the results obtained concerning adjusted R (coefficient of determination) is 0,552. This means that 55.2% of Purchase Decision variables will be affected by independent variables, namely Quality Product (X1), Brand Image (X2), and Switching Behavior (X3). While the remaining 44.8% of Purchase Decision variable will be influenced by other variables that are not discussed in this study.

In addition, the coefficient of determination and correlation coefficient obtained between independent variables of Product Quality, Brand Image, and Purchase Decision (X1), Brand Image (X2), and Switching Behavior (X3) with Purchase Decision variables are included into strong category because they are in the range 0.6 - 0.8.

4.7 Hypothesis test

Hypothesis testing is an important part of the stud. Once the data is collected and processed. Its main purpose is to answer the hypothesis made by the researcher.

4.7.1 Hypothesis Variable

T test is used to find out whether each independent variable partially has a significant influence on the dependent variable. It can also be said if t arithmetic> t table or -t arithmetic <-t table then the result is significant and means H0 is rejected and H1 is accepted. Whereas if t arithmetic <t table or-t arithmetic> -t table then the result is not significant and means H0 is accepted and H1 is rejected.

Based on Table 4.13 the following results are obtained:

- t test between X_1 (Quality Product) with Y (Purchase Decision) shows t count = 6.351. While t table (α = 0.05; db residual = 96) is equal to 1,985. Because t arithmetic> t table is 6.351> 1.985 or sig t value (0.000) <α = 0.05 then the influence of X_1 (Quality Product) to Purchase Decision is significant. This means H0 is rejected and H1 is accepted so it can be concluded that Purchase Decision can be affected significantly by Quality Product or by improving Quality Product Purchase Decision will increase significantly.
- t test between X2 (Brand Image) with Y (Purchase Decision) shows t arithmetic = 2.905. While t table (α = 0.05; db residual = 96) is equal to 1,985. Because t count> t table is 2,905> 1,985 or sig t value (0,005) <α = 0.05 then influence of X2 (Brand Image) to Purchase Decision is

significant at alpha 5%. This means H0 is rejected so it can be concluded that Purchase Decision can be significantly affected by Brand Image or by increasing Brand Image Purchase Decision will experience a high increase.

- t test between X3 (Switching Behavior) with Y (Purchase Decision) shows t count = 3.338. While t table (α = 0.05; db residual = 96) is equal to 1,985. Because t count> t table is 3,338> 1,985 or sig t value (0.001) <α = 0.05 then influence of X3 (Switching Behavior) to Purchase Decision is significant at alpha 5%. This means H0 is rejected and H1 is accepted so it can be concluded that by increasing Switching Behavior Purchase Decision will increase significantly.

4.7.2 Dominant Test Result

To determine the independent variable that gives the most influence on the variable Y, it can be done by comparing the regression coefficient (β) between variables with each other. The independent variable that is most dominant influence on the variable Y is the variable that has the largest regression coefficient.

To compare the regression coefficients of each independent variable, the table is presented as follows:

Table 4.14

Dominant Test Result

Ratings	Variable	*Beta coefficient*	Information
2	X_1	0.455	Significant
3	X_2	0.248	Significant
	X_3	0.277	Significant

Source: Primary Data Processed, 2018.

Based on Table 4.14, the Quality Product variable is the variable that has the largest regression coefficient. That is, variable Y is more influenced by Quality Product variable. The coefficients possessed by Quality Product variables are positive indicating a unidirectional relationship so that it can be concluded that the better Quality Product variable the higher is Purchase Decision (Y).

4.8 Discussion

This research is used to know the effect simultaneously and partially from variable of product quality, brand image, and brand switching to purchasing decision of pesticide in PT. Petrokimia Kayaku Gresik. Based on the findings and the formulation of the problem, the discussion is described as follows:

4.8.1 Product Quality, Brand Image, Brand Switching, and Pesticide Purchase Decision at PT. Petrokimia Kayaku Gresik

Product quality is an advantage that characterizes the product or service, and is able to adjust customer expectations (Kotler, 2009; and Kotler & Amstrong, 2009). Product quality indicates the product's ability to perform its function. Kotler and Armstrong (2009) argue that the higher the quality of the product indicates that the customer is satisfied with the product or service provided. In other words, a quality product keeps customers satisfied. Therefore, this study also involves product quality as one of the variables studied

Indicators with good yields are durability, reliability, and quality impression. From the dimension of endurance, the customer assesses that the pesticide produced from the company is in accordance with the claim given, the pesticide is able to survive within the expiration limit, is 2 years after the

production period. From the dimension of reliability, the product does not cause dangerous side effects because it does not make farmers or customers to be late harvesting. Meanwhile, from the dimension of quality impression, the company guarantees the product, through the availability of production licensing number from the Ministry of Agriculture in pesticide packaging.

Indicators with sufficient appraisal are compliance with service specifications and capabilities. Benefits perceived by customers represent compliance with specifications. The production of pesticides from the company has sufficient benefits in accordance with the composition in the packaging. Each composition is included in its usefulness, and what is included in the information is sufficient enough for the customer. This is similar to the company's service capabilities capable of distributing its products anywhere. With 5000 kiosks listed by the company, customers simply get the desired pesticide product. Customers can also buy online through the company website which will be sent through the delivery service.

Indicator with poor gain is performance. This is because pesticide products cannot accelerate plant growth and fertilize the soil. Based on interviews, not many customers choose products with the ability to accelerate plant growth because sometimes too risky. Most societies have switched to healthier lives, so they prefer as inorganic crops as possible, so customers choose products that are able to crop pests. In addition, the use of pesticide with high chemical content makes the soil become damaged or infertile due to nutrients in the soil is reduced, so that customers choose products that are safe for their land and the price is known to be more expensive.

In addition to product quality, this research also focuses on brand image. Brand image is the customer's perception of the brand of a company, as a result of customer's knowledge of the product (Keller, 2008; Rangkuti, 2008; and Roslina, 2010). Tjiptono (2008) argues that brand image is useful for advice on identification of brand handling and tracking, legal protection of characteristics of features owned by a product, describes the level of product quality, in creating associations and impression of product characteristics, a source of product superiority that can be embedded in the minds of consumers, and sources of financial returns in the future. Based on these considerations, the researcher uses brand image as a variable in the study

Based on the results of the analysis is known that the brand image has a good acquisition. In this study, the brand image was elaborated into three indicators, each developed into two statements. The indicator with a good gain is the image of the user and the product. While for the image makers included in the sufficient category because there are items with good and bad earnings.

User image is good category. This is indicated by the high confidence of farmers or users about the harvest by using fertilizer from this company. In addition, the customer acknowledges that purchasing products from PT. Petrokimia Kayaku Gresik is one of the efforts to love domestic products. Ali (2011) means that the user image is an association of the consumer's perceived use of the product, which may be the user itself and his social status. The pride of using the product can be that customers have a positive perception of product usage. Furthermore, perceptions of status are shown with positive feelings about the use of products because they love domestic products.

Furthermore, through this research also focuses on the movement of products from employees. Brand switching is a shift in purchasing patterns from a product or brand to another (Petter and Olson, 2014). This behavior is thought to be dissatisfaction with certain products or brands, dismiss the use, and crave for other brands or products (Bayu, 2015).

Based on the distribution of questionnaires, it is known that generally the customer desire to do brand switching included in the category enough. That is, they are not very ambitious or ignore to make a product move. To know the movement of products or brands, this study involves four indicators presented in four statements. The resulting response varies; there are two indicators with high gain and one indicator with sufficient and low yields.

Indicators with low yields or customers do not want to make a switch to a brand is a usage of use. This condition is indicated by customers who do not want to stop using the product currently in use. Although they allow brand switching, they cannot completely stop using products with the PT brand. Petrokimia Kayaku Gresik. An informant tells them that sometimes during certain harvest seasons they use other products or brands, but they tend to return to the previous product because of some considerations, such as the precursors in the family continue to use the product to maintain the quality of their crops and soil.

Indicator with sufficient gain is craving other products. Customers agree that they are interested enough and tempted to use products from other brands or other products from PT. Petrokimia Kayaku Gresik when the claims offered are

more attractive than the products they use for this harvest season. Thus, does not close the possibility for customers to use other products.

A high-gain indicator is dissatisfaction with the product and a desire to move products or brands. Customers revealed that some products did not match their wishes. In addition, customers judge that they sometimes want to vary product. This result is similar to the Lestari (2011) study, which states that the tendency to move products because they want to find variations. Customers are eager to try new products, but sometimes they are not what they want because they are not able to solve the problems faced by customers. Thus, for certain products they feel dissatisfied and lead to the desire to make a variety of products.

All three variables are used to determine their contribution in strengthening purchasing decisions. Purchasing decision is the stage of the consumer in the process of deciding to buy a product (Kotler, 2007). Based on the analysis it is known that purchasing decisions fall into either category. Five indicators have a more favorable answer to the good category; there are four indicators with good gains and one indicator with poor gain.

Four indicators with good gains are problem identification, information retrieval, alternative consideration, and post purchase behavior. Before buying, customers carefully identify fertilizer needs to address their concerns and it is followed by searching for relevant information about pesticide and reviewing information via web or question and answer with colleague or kiosk keeper. Once they are satisfied and believe in the reliability of the product, customers will recommend products used to friends or relatives to also use them.

In general, purchasing decisions are good. Customers make good purchasing stages, from identifying problems, finding information, considering options, and behavior after buying. Although brands are not convinced initially when buying a product, they are worry that purchased products do not adequately meet their needs. Thus, customers of PT. Petrokimia Kayaku Gresik has made a good purchase decision.

4.8.2 Partial Influence Product Quality, Brand Image, and Brand Switching to Pesticide Purchase Decision at PT. Petrokimia Kayaku Gresik

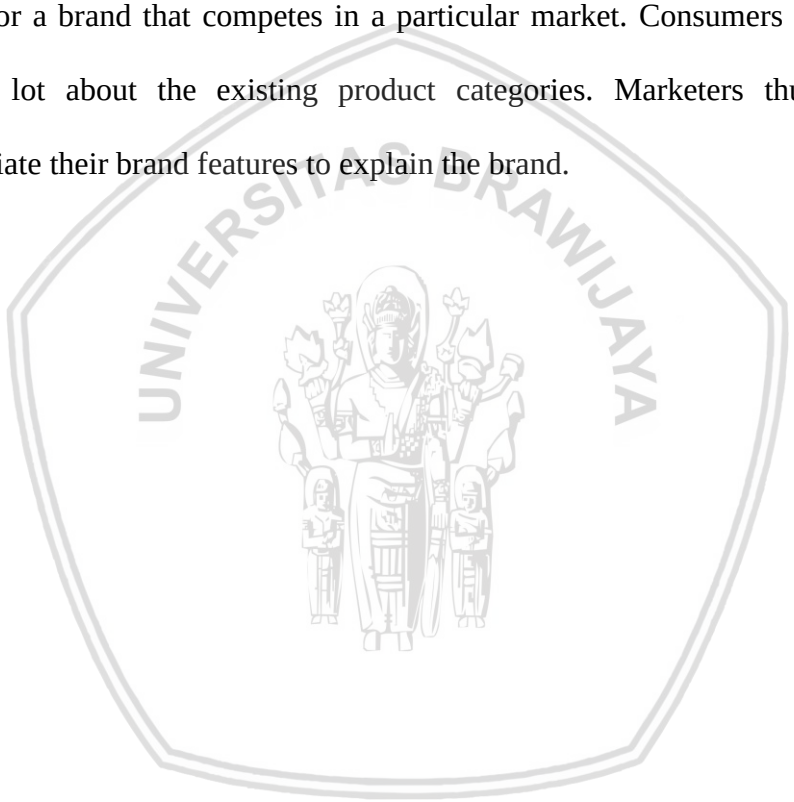
Based on the results of regression analysis, partially independent variables affect the dependent variable. Influence indicated positive and significant. This result makes the increase of independent variable also impact on the increase of dependent variable.

Product quality affects purchasing decisions. Enhanced product quality makes customers feel more confident in deciding to buy products. Companies are always required to improve the quality, creativity and dynamic to influence consumer purchasing decisions. The analysis results are in accordance to Wayan (2013), Hariandy (2014), Puta et al (2017), and Nurdiansyah (2017) studies, with the result stating that product quality influences purchasing decisions. The results of this study is different from research by Ratnaningrum (2016) which states that the quality of the product does not have any effect on purchasing decisions.

Brand image affects purchasing decisions. Improved brand image makes customers feel more stable in deciding to buy products. Individuals who have a good perception of a good will affect the purchase decision. The results of

research similar to this research are Virawan (2013), Romadhoni (2015) and Nurhayati (2017).

Brand switching effect on purchasing decisions. The customer's desire to move high product can decrease the customer's purchasing decision of the product previously used. The movement of a product or brand by the consumer occurs when the consumer understands very well the significant difference between a product or a brand that competes in a particular market. Consumers in this case know a lot about the existing product categories. Marketers thus need to differentiate their brand features to explain the brand.



CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

This research is conducted to know which variables have influence on Purchase Decision. In this study the independent variables used are Quality Product, Brand Image, Switching Behavior while the dependent variable used is Purchase Decision.

Based on the calculation of multiple linear regression analysis, it can be formulated as follows:

1. From the results of multiple linear regression analysis obtained free variables have a significant influence simultaneously to Purchase Decision. So it can be concluded that the testing of the hypothesis which states that the influence of simultaneously (independent) independent variable to Purchase Decision variable can be accepted.
2. To know the effect of individual (partial) independent variable (Quality Product (X1), Brand Image (X2), Switching Behavior (X3)) to Purchase Decision, it is done by t-test. Based on the test results, it is found that there are three variables that have significant influence on the Purchase Decision of Quality Product (X1), Brand Image (X2), Switching Behavior (X3).
3. Based on the results of t tests, it is found that Quality Product variable has the largest t value and beta coefficient. So Quality Product variable

has the most powerful influence compared to other variables then the Quality Product variable has a dominant influence on Purchase Decision.

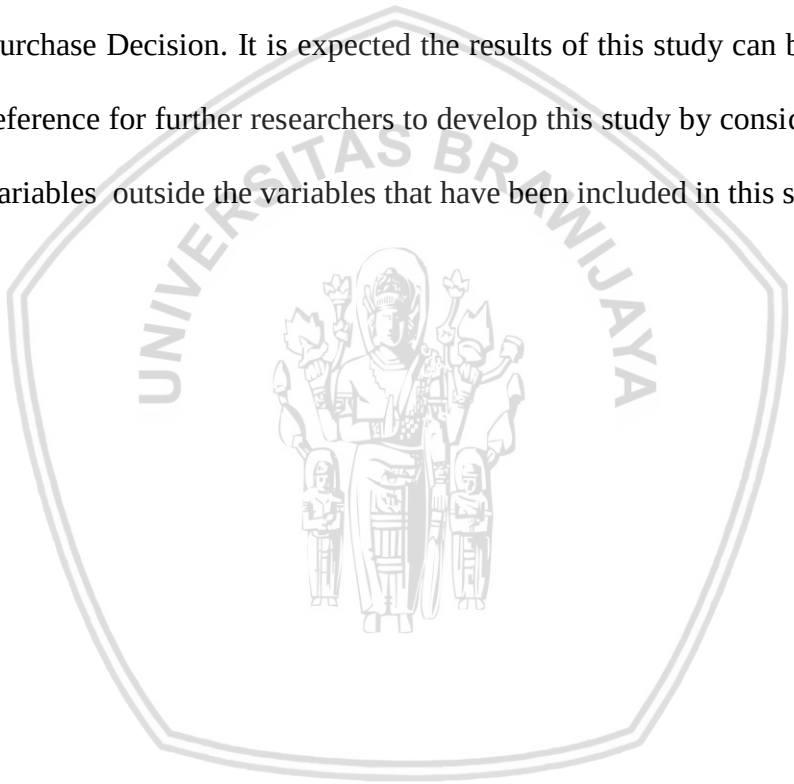
5.2 Suggestions

Based on the above conclusions, there are some suggestions that are expected to benefit the company and for other parties. The suggestions are:

1. It is expected that the company can maintain and improve the quality Product because the variable Quality Product has a dominant influence in influencing Purchase Decision, such as by keeping the product quality and socialize the benefits and product quality to boost company image on the popularity, friendly , and usefulness so Purchase Decision will increase.
2. In the brand image, the customer association through research on the brand reveals that the fertilizer production is not fully able to meet the needs of customer fertilizer. To that end, the company can conduct a survey of the products most needed by the customer to handle the problem of planting the plant. Demographic and weather differences from farmland require different handling, so companies can also adjust product requirements for highland and lowland farmland areas. This is done so that the perception of customers about products that can meet the needs better.
3. Concerning brand switching, the dissatisfaction of the product and the desire to do variations get most result. Customers judge that some products are not in accordance to their expectation. Customer expectations are not met from the purchased product. In this case, the company can accommodate customer demand or expectations about benefits and prices, so that customers feel their expectations are met. In addition, companies

can emphasize the differences that characterize the fertilizer products in the company and constantly increase the variety of products produced. This is done to make product variations remain focused. By doing so, customers only do variations of products, not brands, so that company earnings can remain stable through the purchase of products under the same label

4. Giving independent variables in this study is very important in affecting Purchase Decision. It is expected the results of this study can be used as a reference for further researchers to develop this study by considering other variables outside the variables that have been included in this study .



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APPENDICES

APPENDIX 1

RESEARCH QUESTIONAIRE

KUESIONER PENELITIAN

PENGARUH KUALITAS PRODUK, CITRA MEREK, DAN PERPINDAHAN PRODUK TERHADAP KEPUTUSAN PEMBELIAN PESTISIDA PT. PETROKIMIA KAYAKU GRESIK

Terima kasih atas partisipasi Anda yang menjadi salah satu responden dan secara sukarela mengisi kuesioner ini. Kuesioner ini disusun untuk tujuan penelitian ilmiah yang dilakukan oleh Yusuf Fikri Efendi, mahasiswa program studi Manajemen, Universitas Brawijaya.

Tujuan pengumpulan data dalam bentuk kuesioner ini semata-mata untuk kepentingan akademis dalam rangka penyusunan skripsi. Oleh karenanya, saya sangat mengharapkan kesediaan Anda untuk meluangkan waktu mengisi kuesioner ini.

Sebelum menjawab pernyataan-pernyataan dibawah ini, saya mohon agar Anda membaca terlebih dahulu petunjuk pengisian dan menjawab setiap pernyataan dengan keyakinan tinggi tanpa adanya suatu keraguan sesuai dengan keadaan sebenarnya.

Atas perhatian dan kerjasama yang baik, sebelumnya saya ucapkan terima kasih.

Hormat saya,

Yusuf Fikri Efendi

PENGARUH KUALITAS PRODUK, CITRA MEREK, DAN PERPINDAHAN PRODUK TERHADAP KEPUTUSAN PEMBELIAN PESTISIDA PT. PETROKIMIA KAYAKU GRESIK

I. IDENTITAS RESPONDEN

1. Nomer :
2. Umur (tahun) :☐ ≤ 26 ☐ 27–34 ☐ 35–42
   ☐ 43–50 ☐ 51–58 ☐59
3. Pendidikan : ☐ SMP/MTs ☐ SMA/MA/SMK
   ☐Diploma ☐ Strata
4. Status Perkawinan :☐ Menikah ☐ Belum Menikah

(*catatan: centang pada kotak yang menggambarkan diri anda)

II. PETUNJUK PENGISIAN

Silahkan membaca setiap pernyataan secara cermat. Kemudian berikan tanggapan Anda terhadap pernyataan-pernyataan mengenai kualitas produk, citra merek, pergantian produk, dan keputusan pembelian dengan tanda centang (√) pada salah satu kotak jawaban.

Identitas dan hasil jawaban akan dirahasiakan. Jawaban Anda akan sangat membantu keberhasilan penelitian ini.

Keterangan:

a) SS : Sangat Setuju
b) S : Setuju
c) N : Netral
d) TS : Tidak Setuju
e) STS : Sangat Tidak Setuju

III. DAFTAR PERNYATAAN

A. Kualitas Produk (X_1)

Butir pertanyaan kualitas produk

No	PERNYATAAN	SS	S	N	TS	STS
1	Produk pestisida PT Petrokimia Gresik dapatmempercepat pertumbuhan tanaman dan menyuburkan tanah					
2	Produk PT Petrokimia Gresikmampu bertahan sesui dengan batas kadaluarsa (2 tahun setelah masa produksi)					
3	Produk PT Petrokimia Gresik memiliki manfaatsesuaidengankomposisi yang terdapatdalamkemasan					
4	Produk PT Petrokimia Gresiktidak memiliki efekyang berbahaya (terlambat panen)					
5	Produk PT Petrokimia Gresik memiliki jaminan produk yang baik, karena memiliki nomor perizinan dari Departemen Pertanian yang disertakan pada setiap kemasan produk					
6	Produk PT Petrokimia Gresik mudah didapatkan karena tersedia dimanapun					

B. Citra Merek (X_2)

Butir pertanyaan citra merek

No	PERNYATAAN	SS	S	N	TS	STS
1	PT. Petromikia Gresik merupakan perusahaan yang terkenal/popular					
2	Produk dari PT. Petrokimia mampu memenuhi kebutuhan pupuk bagi Bapak/Ibu/Saudara					
3	Percaya diri dengan hasil panen selama menggunakan produk dari PT. Petrokimia Gresik					
4	Produk PT. Petrokimia membuat Bapak/Ibu/Saudara mencitai produk Indonesia					
5	Produk dari PT. Petrokimia Gresik yang pertama kali diingat oleh Bapak/Ibu/Saudara sebagai penyedia Pestisida bagi tanaman					
6	Produk PT. Petrokimia Gresik sebagai produk pupuk pilihan pertama					

C. Perpindahan Produk (X_3)

Butir pertanyaan perpindahan produk

No	PERNYATAAN	SS	S	N	TS	STS
1	Produk dari PT. Petrokimia Gresik tidak sesuai dengan keinginan					
2	Keinginan melakukan variasi produk pupuk dari PT. Petrokimia Gresik					
3	Ingin berhenti menggunakan produk yang sekarang digunakan					
4	Promosi dan iklan dari produk lain lebih menarik dibandingkan produk dari PT. Petrokimia Gresik					

A. Keputusan Pembelian (X_3)

Butir pernyataan keputusan pembelian

No	PERNYATAAN	SS	S	N	TS	STS
1	mengetahui kebutuhan pestisida untuk bercocok tanam					
2	mencari informasi dari berbagai sumber mengenai dari PT. Petrokimia Gresik					
3	mengevaluasi review atau informasi dari beberapa merek yang sejenis					
4	merasa yakin dengan keputusan pembelian pupuk dari PT. Petrokimia Gresik					
5	mempromosikan produk pupuk dari PT. Petrokimia kepada keluarga, temen atau kerabat lainnya untuk melakukan pembelian serupa ketika merasa puas					

APPENDIX 2

VARIABLE OPERATIONAL DEFINITION

Operational Variable (Product Quality, Brand Image, Switching Behavior, and Purchase Decisions) of Research

Variable	Definitions	Indicator	Scale
Product Quality (X1)	product quality is the ability of a product in demonstrating its function (Kotler and Armstrong, 2009)	-Performance • Healthy Crop -Durability • Long lasting -Conformance to specification • Benefits according to plant composition -Reliability • No harmful effect of the plant -Perceived quality • Guaranteed from legal packaging -Serviceability • Easy to buy the product	Likert Scale
Brand Image (X2)	Brand image is the consumer's perception of a brand as a reflection of the existing brand association on the consumer's mind (Keller, 2008)	-Creators image • Become a famous family • Fulfill the needs -User image • Can produce a quality harvest • Suitable with the product -Product image • The product is always remembered • Pesticide become choices	ScaleLikert

Variable	Definitions	Indicator	Scale
Brand Switching (X3)	Brand switching is purchasing patterns characterized by a change or shift from one brand to another brand (PetterdanOlson,2014)	-Product non conformity • Not conformity expected -The desire to move • Want to try another product -Dismissal • Using another product -Have another dream • More interesting product	ScaleLikert
Purchase Decision (Y)	purchasing decisions are the stage in the buyer decision-making process whereby consumers will actually buy (Kotler, 2007)	- Identification to the problem • Needs - Problems Introduction • Searching information - Alternative Rating • Evaluate from option - Purchase decision • Decision after review - Post purchase behaviour • Promote to others	ScaleLikert

APPENDIX 3

Frequency Table

JK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	L	57	57.0	57.0	57.0
	P	43	43.0	43.0	100.0
	Total	100	100.0	100.0	

Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 26 Tahun	5	5.0	5.0	5.0
	27 - 34 Tahun	24	24.0	24.0	29.0
	35 - 42 Tahun	48	48.0	48.0	77.0
	43 - 50 Tahun	15	15.0	15.0	92.0
	51 - 58 Tahun	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

Pendidikan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SMA	15	15.0	15.0	15.0
	Diploma	57	57.0	57.0	72.0
	Sarjana	28	28.0	28.0	100.0
	Total	100	100.0	100.0	

Status Perkawinan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Menikah	65	65.0	65.0	65.0
	Belum Menikah	35	35.0	35.0	100.0
	Total	100	100.0	100.0	

X1.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	5.0	5.0	5.0
	2.00	9	9.0	9.0	14.0
	3.00	16	16.0	16.0	30.0
	4.00	61	61.0	61.0	91.0
	5.00	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

X1.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	5.0	5.0	5.0
	3.00	33	33.0	33.0	38.0
	4.00	48	48.0	48.0	86.0
	5.00	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

X1.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	4.0	4.0	4.0
	3.00	28	28.0	28.0	32.0
	4.00	56	56.0	56.0	88.0
	5.00	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

X1.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	8	8.0	8.0	8.0
	3.00	39	39.0	39.0	47.0
	4.00	38	38.0	38.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

X1.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	3.0	3.0	3.0
	3.00	40	40.0	40.0	43.0
	4.00	42	42.0	42.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

X1.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	17	17.0	17.0	18.0
	3.00	32	32.0	32.0	50.0
	4.00	39	39.0	39.0	89.0
	5.00	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

X2.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	5.0	5.0	5.0
	3.00	25	25.0	25.0	30.0
	4.00	56	56.0	56.0	86.0
	5.00	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

X2.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	5	5.0	5.0	6.0
	3.00	22	22.0	22.0	28.0
	4.00	56	56.0	56.0	84.0
	5.00	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

X2.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	6	6.0	6.0	6.0
	3.00	25	25.0	25.0	31.0
	4.00	54	54.0	54.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

X2.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	6	6.0	6.0	6.0
	3.00	24	24.0	24.0	30.0
	4.00	54	54.0	54.0	84.0
	5.00	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

X2.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	3.0	3.0	3.0
	3.00	42	42.0	42.0	45.0
	4.00	45	45.0	45.0	90.0
	5.00	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

X2.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	7	7.0	7.0	8.0
	3.00	19	19.0	19.0	27.0
	4.00	60	60.0	60.0	87.0
	5.00	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

X3.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	6	6.0	6.0	6.0
	3.00	32	32.0	32.0	38.0
	4.00	49	49.0	49.0	87.0
	5.00	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

X3.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	4.0	4.0	4.0
	3.00	44	44.0	44.0	48.0
	4.00	40	40.0	40.0	88.0
	5.00	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

X3.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	3.0	3.0	3.0
	2.00	6	6.0	6.0	9.0
	3.00	35	35.0	35.0	44.0
	4.00	46	46.0	46.0	90.0
	5.00	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

X3.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	14	14.0	14.0	14.0
	3.00	35	35.0	35.0	49.0
	4.00	47	47.0	47.0	96.0
	5.00	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

Y1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	3.0	3.0	3.0
	3.00	21	21.0	21.0	24.0
	4.00	59	59.0	59.0	83.0
	5.00	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Y2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	3.0	3.0	3.0
	3.00	28	28.0	28.0	31.0
	4.00	55	55.0	55.0	86.0
	5.00	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

Y3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	7	7.0	7.0	7.0
	3.00	38	38.0	38.0	45.0
	4.00	41	41.0	41.0	86.0
	5.00	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

Y4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	5	5.0	5.0	6.0
	3.00	19	19.0	19.0	25.0
	4.00	60	60.0	60.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

Y5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	5.0	5.0	5.0
	3.00	27	27.0	27.0	32.0
	4.00	53	53.0	53.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

APPENDIX 4

Validity and Reliability

Correlations

		X1
X1.1	Pearson Correlation	.656**
	Sig. (2-tailed)	.000
	N	100
X1.2	Pearson Correlation	.771**
	Sig. (2-tailed)	.000
	N	100
X1.3	Pearson Correlation	.590**
	Sig. (2-tailed)	.000
	N	100
X1.4	Pearson Correlation	.757**
	Sig. (2-tailed)	.000
	N	100
X1.5	Pearson Correlation	.836**
	Sig. (2-tailed)	.000
	N	100
X1.6	Pearson Correlation	.706**
	Sig. (2-tailed)	.000
	N	100

**. Correlation is significant at the 0.01 level

Test

Reliability

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded[a]	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.808	6

Correlations

Correlations

		X2
X2.1	Pearson Correlation	.925**
	Sig. (2-tailed)	.000
	N	100
X2.2	Pearson Correlation	.865**
	Sig. (2-tailed)	.000
	N	100
X2.3	Pearson Correlation	.922**
	Sig. (2-tailed)	.000
	N	100
X2.4	Pearson Correlation	.922**
	Sig. (2-tailed)	.000
	N	100
X2.5	Pearson Correlation	.591**
	Sig. (2-tailed)	.000
	N	100
X2.6	Pearson Correlation	.631**
	Sig. (2-tailed)	.000
	N	100

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded[a]	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.895	6

Correlations

Correlations

		X3
X3.1	Pearson Correlation	.809**
	Sig. (2-tailed)	.000
	N	100
X3.2	Pearson Correlation	.646**
	Sig. (2-tailed)	.000
	N	100
X3.3	Pearson Correlation	.760**
	Sig. (2-tailed)	.000
	N	100
X3.4	Pearson Correlation	.649**
	Sig. (2-tailed)	.000
	N	100

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded[a]	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.684	4

Correlations

Correlations

		Y
Y1	Pearson Correlation	.720**
	Sig. (2-tailed)	.000
	N	100
Y2	Pearson Correlation	.849**
	Sig. (2-tailed)	.000
	N	100
Y3	Pearson Correlation	.668**
	Sig. (2-tailed)	.000
	N	100
Y4	Pearson Correlation	.624**
	Sig. (2-tailed)	.000
	N	100
Y5	Pearson Correlation	.812**
	Sig. (2-tailed)	.000
	N	100

**. Correlation is significant at the 0.01 level

Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.782	5

APPENDIX 5

Classical

assumptions

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.752[a]	.566	.552	1.84437	2.209

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1	.880	1.136
	X2	.622	1.608
	X3	.656	1.524

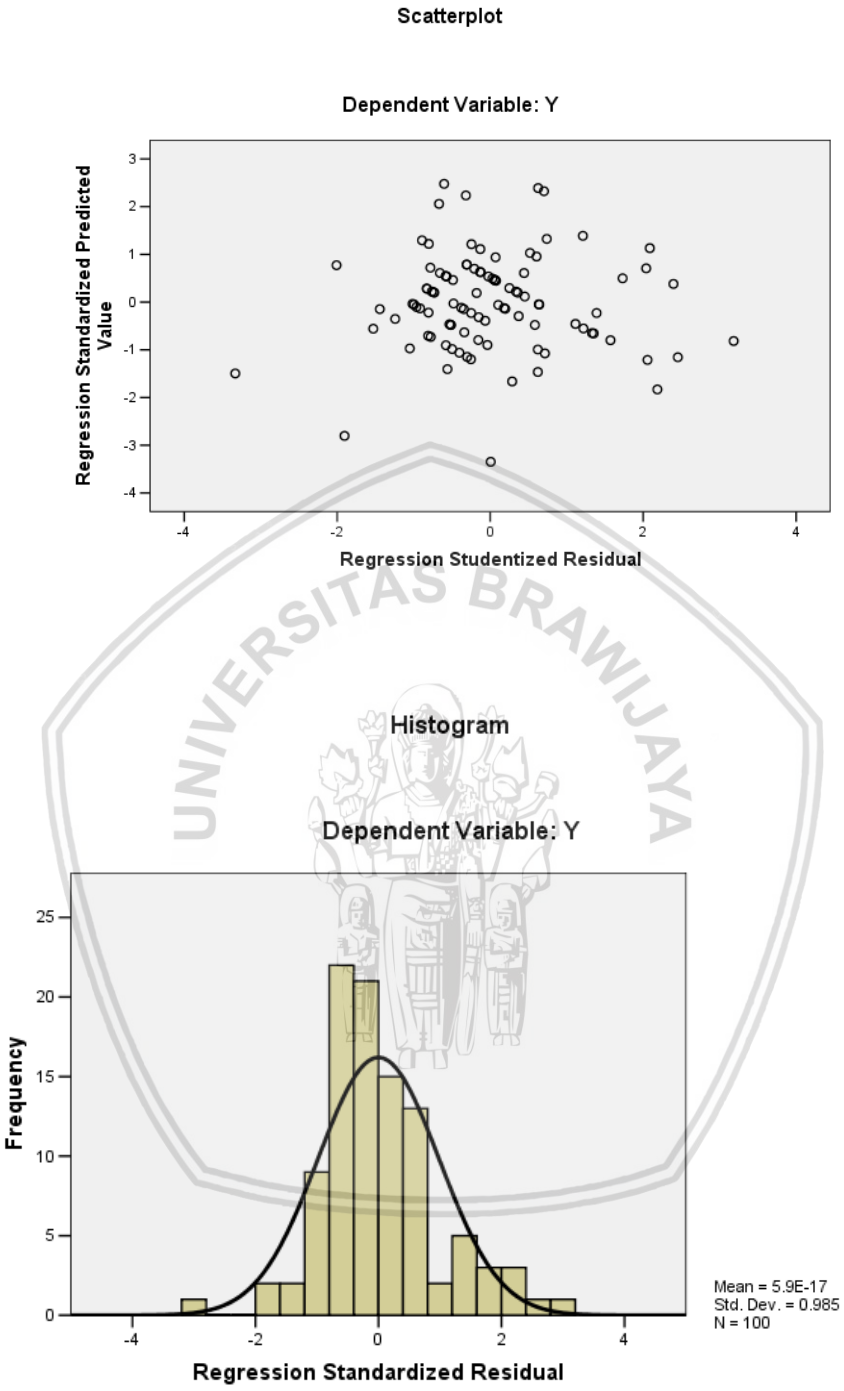
a. Dependent Variable: Y

One-Sample Kolmogorov-Smirnov Test

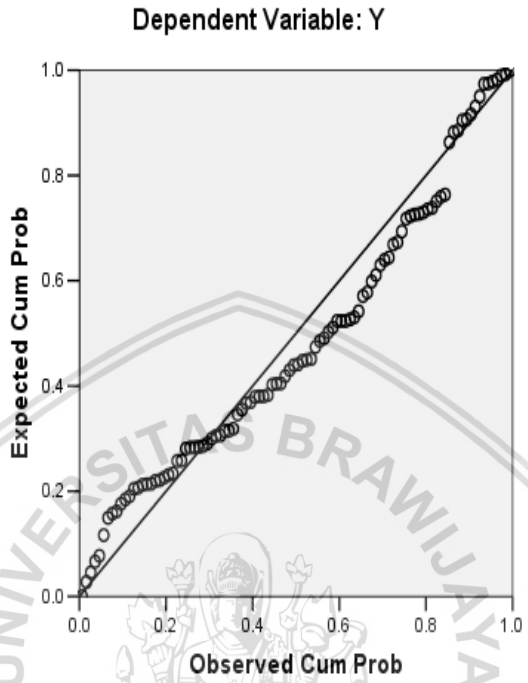
		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.81621468
Most Extreme Differences	Absolute	.109
	Positive	.109
	Negative	-.086
Kolmogorov-Smirnov Z		1.090
Asymp. Sig. (2-tailed)		.186

a. Test distribution is Normal.

b. Calculated from data.



Normal P-P Plot of Regression Standardized Residual



APPENDIX 6

MULTIPLE REGRESSION ANALYSIS

Descriptive Statistics

	Mean	Std. Deviation	N
Y	18.9300	2.75701	100
X1	21.7800	3.57200	100
X2	22.5700	3.73424	100
X3	14.2400	2.27911	100

Correlations

		Y	X1	X2	X3
Pearson Correlation	Y	1.000	.610	.563	.538
	X1	.610	1.000	.338	.256
	X2	.563	.338	1.000	.583
	X3	.538	.256	.583	1.000
Sig. (1-tailed)	Y	.	.000	.000	.000
	X1	.000	.	.000	.005
	X2	.000	.000	.	.000
	X3	.000	.005	.000	.
N	Y	100	100	100	100
	X1	100	100	100	100
	X2	100	100	100	100
	X3	100	100	100	100

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	X3, X1, X2[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Y

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.752[a]	.566	.552	1.84437	2.209

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	425.945	3	141.982	41.738	.000[a]
	Residual	326.565	96	3.402		
	Total	752.510	99			

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.379	1.497		1.589	.115
	X1	.351	.055	.455	6.351	.000
	X2	.183	.063	.248	2.905	.005
	X3	.335	.100	.277	3.338	.001

a. Dependent Variable: Y